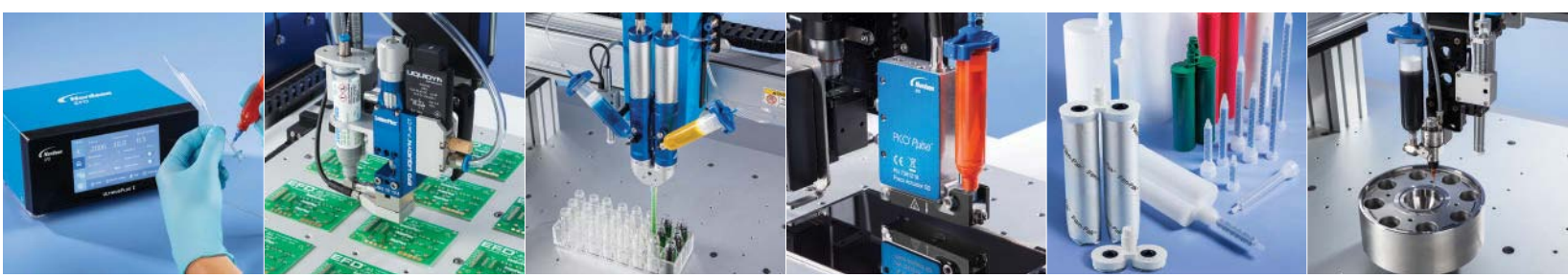
Game Changing Dispensing Solutions



Engineered Fluid Dispensing

PRODUCT CATALOG **9**

G A LINDBERG

Nordson EFD

Contents

Since 1963, Nordson EFD dispensing systems have helped thousands of companies make precise deposits of adhesives, lubricants and other assembly fluids.

Our business is to match your specific application needs with our wide range of dispensing tools to maximize your total cost savings.

From benchtop dispensers to high-performance automated dispensing systems, EFD devices are used by manufacturers in hundreds of industries throughout the world.

We invite you to learn more, and look forward to working with you.

Industries

EFD engineered fluid control systems are trusted for applying controlled amounts of adhesives, sealants, lubricants, and other assembly fluids that increase productivity for nearly every industrial manufacturing process.

1K and 2K Fluid Packaging

• Adhesives • Bait Gels • Braze Pastes • Epoxies • Greases • Lubricants
• RTV Sealants • Silicones • Solder Pastes • Thermal Compounds

Aerospace

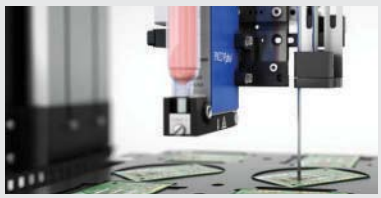
• Cockpits • Electrical Systems • Flight Recorders • GPS Systems • Instrument Panels
• Landing Gear • Measurement Instruments • Military Munitions • Propellant Parts
• Satellites • Seating • Turbines • Wire Harnesses

Automotive

• Air Conditioning Systems • Body Panels • Brakes • Control Switches
• Electrical Systems • Engine Components • Frames and Suspensions • Fuel Systems
• Instrument Panels • Lighting, Headlamps • Mirrors • Passenger Restraints
• Sensors, Relays, Regulators • Transmissions • Wheels • Windshields
• Wiring Harness Connectors

Construction

• Caulking • Chemical Anchors into Concrete, Brick, Stone, and Wood
• Crack Repair • Door and Window Sealing • Hydraulic Pumps • Joint Sealing
• Nail Plate Manufacturing • Roof Installation



Electronics

• Capacitors • Digital Cameras • Electronic Chips • Electronic Housing Chassis
• Fiber Optics • LEDs • Liquid Crystal Displays • Membrane Switches
• Microwave Components • PC Board Assemblies • SMT Circuit Boards

Food Manufacturing and Packaging

• Coating Food with Scent/Flavoring • Filling Perfume Bottles
• Filling/Topping Off Foil Packets and Other Containers
• Lubricating Can Stock, Can Ends, and Pull Tabs • Lubricating Foil Slitters
• Shrink Wrapping

Life Sciences

• Catheters • Contact Lenses • Defibrillators • Diagnostic Equipment • Hearing Aids
• Membranes • Pacemakers • Pills and Medicines • Respiration Devices
• Stent Coating • Surgical and Dental Tools • Syringe Lubrication • Vial Filling

Wireless

• Accessories • Camera Modules • Cover Glass • Displays • Frames • Keypads
• Microspeakers • Miscellaneous Unit Assembly • Protective Treatments
• Touch Panels

Precision Dispensers

Benchtop / Portable / Tools / Filling

EFD's precision dispensing systems make it simple to apply accurate, repeatable amounts of virtually any assembly fluid — including adhesives, epoxies, lubricants, threadlockers, paints, and grease.

By using digital timers and precision air regulators or positive displacement technology to determine the amount of material applied, EFD dispensers eliminate operator guesswork and take the variability out of the dispensing process.

The result is higher productivity, better quality and reliability, a cleaner and safer workplace, and lower production costs.

Products range from high-precision dispensers for critical applications that require a high degree of process control to economical units for general-purpose use.

Nordson EFD

Precision Fluid Dispenser Selection Guide

BENCHTOP DISPENSERS					
	 UltimusPlus I / II	 Ultimus V	 Ultimus I / II	 Performus X100 / X15	 Performus I
Type	Air Powered	Air Powered	Air Powered	Air Powered	Air Powered
Recommended Fluids	All fluids / Low-viscosity fluids	All fluids	All fluids / Low-viscosity fluids	All fluids / Low-viscosity fluids	All fluids
Air Pressure Range	0.7–7.0 bar (10–100 psi) / 0–1.0 bar (0.3–15 psi)	0–7.0 bar (0–100 psi)	0–7.0 bar (0–100 psi) / 0–1.0 bar (0–15 psi)	0–7.0 bar (0–100 psi) / 0–1.0 bar (0–15 psi)	0–7.0 bar (0–100 psi)
Time Range	0–999.9999 s	0-9.9999 s	0–999.9999 s	0–99.9 s	—
Warranty	5 years[1]	1 year	5 years[1]	2 years	1 year
Steady Mode	✓	✓	✓	✓	✓
Teach Mode	✓	✓	✓	✓	—
Timed Mode	✓	✓	✓	✓	—
Display	Touchscreen	LCD	LCD	—	—
Digital Pressure / Time	✓	✓	✓	✓	Analog
Digital Vacuum	✓	✓	✓	Analog	Analog
Multilingual	✓	✓	✓	—	—
Lockout	All Parameters	Time & Pressure	Time	—	—
Number of Programs	16 (time, pressure, vacuum, barcode)	400 (time, pressure, vacuum)	16 (time)	—	—
Multiple Cycles	MultiShot[2]	Auto Sequence[3]	—	—	—
Initiate Signal	✓	✓	✓	✓	—
End-of-Cycle Feedback	✓	✓	✓	✓	—
RS-232	—	✓	—	—	—
Ethernet	✓[4]	—	—	—	—

[1] Two years in Asia.
[2] MultiShot allows multiple shots from a single press of the foot pedal.
[3] Programmable memory that automatically adjusts dispensing parameters for viscosity changes.
[4] UltimusPlus allows remote control from a PLC or computer via NX protocol

✓ Applicable | — Not applicable

High Precision Dispensers

Experience a new level of ease with Nordson EFD's UltimusPlus™ dispensers. Train operators in seconds with intuitive touchscreen control of dispensing parameters. Designed to simplify setup and operation, the advanced functionality of the UltimusPlus allows operators to focus on making accurate, controlled deposits.

Features and Benefits

- Electronic pressure regulation with full operator lockout
- Optional barcode scanner allows you to automatically alternate between 16 programs
- Dispense multiple shots from a single press of the foot pedal with MultiShot™
- Enable process verification by downloading Dispense Log data
- Support Smart Factory integration using Ethernet compatibility with NX protocol via TCP/IP
- Improve operational efficiency by programming and monitoring dispensing from a PLC or personal computer

Order Your Components

Nordson EFD Optimum® components are designed to work with your dispenser as part of a complete, integrated system that produces the most accurate, repeatable deposits possible. See Optimum Dispensing Components for details.

UltimusPlus Series

7364361 UltimusPlus I
Features a 0.7–7.0 bar (10–100 psi) pressure regulator that handles all fluids.
Also includes NX protocol via Ethernet.
Order power cord separately.

7364475 UltimusPlus I – Calibrated
Same as #7364361 but the unit has been calibrated to EFD's specifications using standards traceable to the National Institute of Standards and Technology (NIST). Also includes NX protocol via Ethernet. Order power cord separately.

7364362 UltimusPlus II
Has a 0.02–1.0 bar (0.3–15 psi) regulator that provides greater control when dispensing thin fluids. Also includes NX protocol via Ethernet. Order power cord separately.

7364476 UltimusPlus II – Calibrated
Same as #7364362 but the unit has been calibrated to EFD's specifications using standards traceable to the National Institute of Standards and Technology (NIST). Also includes NX protocol via Ethernet. Order power cord separately.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

www.nordsonefd.com/UltimusPlusVideo

Specifications

Cabinet size:	21.2W x 10.8H x 19.2D cm (8.33W x 4.27H x 7.55D")
Weight:	1.8 kg (4.0 lb)
Power adapter:	AC input: 100-240 VAC (+/-10%), ~50/60 Hz, 0.6 Amp DC Output: 24 VDC @ 3.75 Amp
Cycle rate:	Exceeds 600 cycles per minute
Time range:	0.0001–999.9999 s
End-of-cycle feedback circuits:	24 VDC; 100 mA maximum

Cycle initiate:	Foot pedal, finger switch, 24 VDC signal, or mechanical contact closure
Air output:	UltimusPlus I: 0.7–7.0 bar (10–100 psi) UltimusPlus II: 0.02–1.0 bar (0.3–15 psi)
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	See Product Manual

Ultimus V Series

7012590 Ultimus V
Features a 0–7.0 bar (0–100 psi) pressure regulator that handles all fluids. Order power cord separately.

7012589 Ultimus V – Calibrated
Same as #7012590 but the unit has been calibrated to EFD's specifications using standards traceable to the National Institute of Standards and Technology (NIST). Order power cord separately.

7014503 Ultimus V Optimeter 30cc
Specifically designed to work with the Ultimus V, the patented Optimeter™ provides even greater control when dispensing all fluids by automatically increasing airflow as the syringe barrel empties. Specify #7014504 for Optimeter 10cc.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

The Ultimus™ V High Precision Dispenser provides the highest level of accuracy and process control when applying fluids that change viscosity, including 2-part epoxies and other fluids that thicken over time, as well as UV-cure adhesives and materials that get thinner as ambient temperatures rise.

Features and Benefits

- Fully electronic control of dispense time, air pressure, and vacuum to ensure exceptionally high accuracy, repeatability, and shot consistency
- Programmable memory that automatically adjusts dispensing parameters for viscosity changes
- Interactive PC software and remote communications with PC/PLC via RS-232 protocol
- Selectable operator lockout and alarm settings

Order Your Components

Nordson EFD Optimum components are designed to work with your dispenser as part of a complete, integrated system that produces the most accurate, repeatable deposits possible. See Optimum Dispensing Components for details.

"Nordson EFD's Ultimus V dispenser is a notable improvement over the previous generation, reducing variation and improving shot-to shot-consistency."
– Renishaw

www.nordsonefd.com/Ultimus-V

Specifications

Cabinet size:	22.5W x 9.50H x 19.9D cm (8.86W x 3.74H x 7.85D")
Weight:	3.4 kg (7.7 lb)
Internal AC-DC power supply:	AC input: 100–240 VAC (+/-10%), ~50/60Hz, 0.5 A DC output (internal): 24 VDC @ 1.7 A
Cycle rate:	Exceeds 600 cycles per minute
Time range:	0-9.9999 s

End-of-cycle feedback circuits:	5–24 VDC, 100 mA maximum
Cycle initiate:	Foot pedal, finger switch, or 5–24 VDC signal
Air output:	0–7.0 bar (0–100 psi)
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited

High Precision Dispensers

Featuring simultaneous digital display of all dispenser settings and time adjustment as fine as 0.0001 seconds, Ultimus I–II dispensers bring exceptional process control to medical device, electronics, and other critical dispensing processes.

Features and Benefits

- All-digital, multi-function display
- 16 memory settings
- 4-decimal time setting
- Multilingual display
- Operator lockout of time setting
- Universal power supply

Order Your Components

Nordson EFD Optimum components are designed to work with your dispenser as part of a complete, integrated system that produces the most accurate, repeatable deposits possible. See Optimum Dispensing Components for details.

"The dispensers make quick, easy deposits. Our operators love it. A big winner."
– Automotive Electronics

Ultimus I–II Series

7017041 Ultimus I
Features a 0–7.0 bar (0–100 psi) pressure regulator that handles all fluids.

7012584 Ultimus I – Calibrated
Same as #7017041 except the unit has been calibrated to EFD specifications using standards traceable to the National Institute of Standards and Technology (NIST).

7002003 Ultimus II
Has a 0–1.0 bar (0–15 psi) regulator that provides greater control when dispensing thin fluids.

7012586 Ultimus II – Calibrated
Same as #7002003 except the unit has been calibrated to EFD specifications using standards traceable to the National Institute of Standards and Technology (NIST).

www.nordsonefd.com/Ultimus-I

Specifications

Cabinet size:	14.3W x 18.1H x 17.3D cm (5.63W x 7.12H x 6.82D")
Weight:	2.3 kg (5.0 lb)
Power adapter:	AC input: 100–240 VAC (+/-10%), ~50/60Hz, 0.6 Amp DC output: 24 VDC @ 1.04 Amp
Cycle rate:	Exceeds 600 cycles per minute
Time range:	0.0001–999.9999 s
End-of-cycle feedback circuits:	5–24 VDC, 100 mA maximum

Cycle initiate:	Foot pedal, finger switch, or 5–24 VDC signal
Air output:	Ultimus I: 0–7.0 bar (0–100 psi) Ultimus II: 0–1.0 bar (0–15 psi)
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	5 year, no-fault (Americas and Europe) 2 year, no-fault (Asia)

General Purpose Dispensers

Performus X Series

7363256 Performus X100
Features a 0–7.0 bar (0–100 psi) pressure regulator that handles all fluids.

7363257 Performus X15
Features a 0–1.0 bar (0–15 psi) pressure regulator that provides greater control when dispensing thin fluids.

Nordson EFD's Performus dispensers increase throughput, improve yields, and reduce production costs through controlled application of adhesives, lubricants, and other assembly fluids.

Features and Benefits

- Consistent dots and fills, and neat beads
- Timed, Teach, or Steady operation
- Vacuum control keeps thin fluids from dripping between cycles
- Digital time/pressure display

Order Your Components

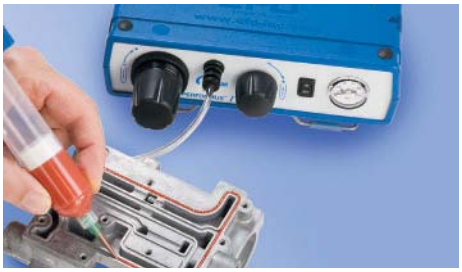
Nordson EFD Optimum components are designed to work with your dispenser as part of a complete, integrated system that produces the most accurate, repeatable deposits possible. See Optimum Dispensing Components for details.

www.nordsonefd.com/PerformusVideo

Specifications

Cabinet size:	26.4W x 17.1D x 6.7H cm (10.38W x 6.75D x 2.62H")
Weight:	1.0 kg (2.2 lb)
Power adapter:	AC input: 100–240 VAC (+/-10%), ~50/60Hz, 0.6 Amp DC output: 24 VDC @ 0.75 Amp
Cycle rate:	Exceeds 600 cycles per minute
Time range:	0–99.9 s
End-of-cycle feedback circuits:	5–24 VDC, 100 mA maximum

Cycle initiate:	Foot pedal, finger switch, or 5-24 VDC signal
Air output:	Performus X100: 0–7.0 bar (0–100 psi) Performus X15: 0–1.0 bar (0–15 psi)
Approvals:	CE, UKCA, ETL, RoHS, WEEE, China RoHS
Warranty:	2 year, limited



Performus I

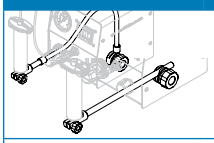
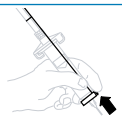
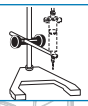
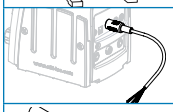
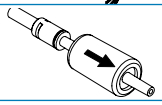
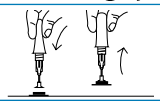
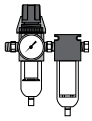
7012330 Performus I
Features a 0–7.0 bar (0–100 psi) pressure regulator that handles all fluids.

Used for operator-controlled dispensing applications that do not require a timed shot, the Performus I handles all fluids to dispense dots, beads, and fills. It features an electric foot pedal, plus vacuum control to keep thin fluids from dripping.

Features and Benefits

- Steady mode / analog air pressure display
- Fast, controlled application / clean, drip-free cutoff

Dispenser Accessories

	PART #	ACCESSORY	DESCRIPTION	UltimusPlus	Ultimus I-II	Ultimus V	Performus X
	7017105	Flex arm syringe barrel holder	Mounts to dispenser cabinet; can be adjusted to multiple positions		✓ ✓	✓ ✓	
	7014503 7014504	Optimeter – 30cc size Optimeter – 10cc size	Syringe barrel adapter that maintains consistent full-to-empty pressure on fluid being dispensed			✓ ✓	
	7016718 7017089	Finger switch (Rectangular connector) Finger switch (Round DIN connector)	Low voltage, push-button finger switch controls dispense cycle	✓	 ✓	✓	✓
	7021053	Syringe barrel production stand	Provides full-barrel swivel, horizontal, and vertical adjustment. Accepts all EFD barrels.	✓	✓	✓	✓
	7017143	8-pin I/O connector assembly	Allows easy connection to dispenser for external control		✓		✓
	7017049	Cleanroom filter muffler	Filters output air to meet Fed 209-B (0.5 micron particulates)	✓	✓	✓	
	7024803	VacTweezer™ pickup tool	Useful, low cost pick-and-place tool with staticide treated kit. Includes (7) tips, (5) pad sizes	✓	✓	✓	✓
	7013229	Dispensing tip sample kit	Includes a selection of various types and styles of dispensing tips	✓	✓	✓	✓
	7002002	5-micron filter/regulator	Provides proper air filtering for all dispensers. Order if you do not have a clean, dry, filtered factory air supply.	✓	✓	✓	✓
	7016548	5-micron filter/regulator with coalescing filter	5-micron filter/regulator with coalescing filter	✓	✓	✓	✓
	7021515	Coalescing filter assembly only	Recommended for systems dispensing cyanoacrylates	✓	✓	✓	✓
	7014880	Filter element replacement kit	Removes liquid aerosols from air supply	✓	✓	✓	✓
	7364357	Barcode scanner	Scans barcode and automatically alternates between programs	✓			

"Your dispensers work great. Making dots used to be an art. Now we don't even think about it. We just fill the barrels and go."

– Preferred Technical Group

Portable Dispensers

HPD

DispensGun

Versatile and inexpensive, manual dispensers are ideal for touch-ups, low-volume assembly, and field work. They can be used with all EFD syringe barrels, pistons, and tips.

Features and Benefits

- Ergonomic design
- Fatigue-free dispensing of thick fluids
- Positive shutoff, no dripping
- Simplified maintenance
- Reusable

HPD

Designed for use with EFD syringe barrels and pistons, HPD™ Hand Plungers provide a clean, comfortable alternative to squeeze bottles and hand syringes.

DispensGun®

Features 10:1 mechanical leverage that makes it easy to dispense thick materials like greases and silicones without hand fatigue. A clean cutoff when the trigger is released prevents oozing between fluid applications.

Fluids	MODELS	
	DG	HPD
Anaerobics	▲	▲
Coatings	●	●
Cyanoacrylates	X	X
Gel Cyanoacrylates	▲	▲
White Glues	●	●
Epoxies	●	●
Inks	X	●
Greases	●	●
Oils	X	▲
Sealants	●	●
Silicones	●	●
Solder/Braze Pastes	●	●
Solvents	X	X
UV Cure	●	●

Key
● Recommended
▲ Satisfactory
X Do not use

HPD Hand Plungers DispensGun

7023615 HPD3K Hand Plunger
3cc syringe barrel size

7023622 HPD5 Hand Plunger
5cc syringe barrel size

7023596 HPD10K Hand Plunger
10cc syringe barrel size

7023610 HPD30K Hand Plunger
30cc syringe barrel size

7023133 DG3 DispensGun
3cc syringe barrel size

7023137 DG5 DispensGun
5cc syringe barrel size

7023125 DG10 DispensGun
10cc syringe barrel size

7023134 DG30 DispensGun
30cc syringe barrel size

7023141 DG55 DispensGun
55cc syringe barrel size

2K Dispense Guns

See 2K Dispense Guns for dispensing 2-component materials.

"Production doubled the first day the EFD systems were installed."
– Food Packaging Group

HPx High-Pressure Dispensing Tool

The HP™ Series high-pressure dispensing tool applies RTV silicones, epoxies, medical adhesives, and other thick fluids through dispensing tips as small as 0.004" in diameter. Designed to work with EFD air-powered dispensers, these tools will multiply the output of a standard 100 psi dispenser up to 7x.

Features and Benefits

- Fast, fatigue-free application of thick fluids
- Aluminum handpiece is easy to hold
- Easy tip installation/removal with built-in wrench
- Low fluid level indicator

7023590 HP3cc Dispensing Tool
Uses 3cc EFD syringe barrels and pistons and produces a maximum pressure of 700 psi (48.2 bar).

7015289 HP5cc Dispensing Tool
Uses 5cc EFD syringe barrels and pistons and produces a maximum pressure of 400 psi (27.6 bar).

7012598 HP10cc Dispensing Tool
Uses 10cc EFD syringe barrels and pistons and produces a maximum pressure of 400 psi (27.6 bar).

www.nordsonefd.com/HPXTool

Equalizer 2K Dispensing Tool

The pneumatically operated Equalizer™ 2K dispensing tool makes it possible to dispense accurate, repeatable amounts of 2-component materials. It is designed for use with EFD dispensers and 50mL Side x Side cartridges and static mixers (order separately).

Features and Benefits

- Eliminates hand fatigue associated with manual dispensers
- Ideal for pre-mixing and downpacking from 2K cartridges into syringe barrels

7360152
Standard configuration provides accurate 50mL 1:1 and 2:1 dispensing.

7015864
Transfer Kit allows downpacking of 2K materials.

7360401
Conversion Kit allows use with 4:1 cartridges.

7015875
Kit Universal Stand Mount 25–50 mm.

ProcessMate 5000 Universal Centrifuge

7015542 100-240 VAC Centrifuge
Multi voltage. RoHS compliant. Includes syringe adapters and power cord.

The Universal Centrifuge quickly and efficiently removes entrapped air bubbles and air pockets from fluid that is packaged in syringes.

The adjustable speed control allows the user to adjust the G-force for low- to high-viscosity fluids. The electric brake can be initiated at the end of the cycle to quickly stop the rotor from spinning, saving additional process time.

Features and Benefits

- Improves process control and reduces rejected parts
- Spins up to (4) 3cc–30cc syringes
- Fixed angle rotor
- Lid locks for safety
- All-metal cabinet construction for safety

For use with

- 2-part Epoxies
- Frozen Epoxies
- RTVs
- Greases
- Various other fluids

ProcessMate 6500 Temperature Control Unit

7020340 ProcessMate 6500 Temperature Control Unit
Includes fittings, muffler, connectors, overlay, and universal power cord.

The ProcessMate™ controller maintains temperature-sensitive dispensing processes across a 10° to 40° C range (50° to 104° F).

The ProcessMate 6500 is suitable for manual and automated applications using syringe barrels, dispense valves, and other dispensing equipment.

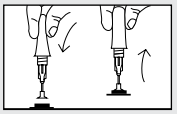
Features and Benefits

- Compact — controls just the process, eliminating the need for machine enclosures
- Provides precise process control
- Cost effective — localized temperatures are reached within minutes
- Easy to install, adjust, and use

Vacuum Pickup System ProcessMate 100

7012329 ProcessMate 100 Vacuum Pickup Pen
Includes assorted antistatic tips and vacuum cups.

7024803 VacTweezer Pickup Tool
The kit includes the same assortment of silicone rubber vacuum cups and tips, along with a small squeeze bulb with a luer fitting that attaches to the tips to generate vacuum.



The ProcessMate 100 provides a simple, efficient way to lift and position small or delicate components in benchtop assembly processes.

To lift the component, the operator simply places the pickup pen on the component and presses an electric foot pedal to apply vacuum. When the component has been positioned, releasing the foot pedal stops the vacuum and releases the component.

Note: If vacuum is only needed occasionally or there is no access to compressed air, the VacTweezer is a useful, low-cost pick-and-place tool.

Soft, see-through pickup pads make it easy to accurately place components without scratching or damage.

Features and Benefits

- Faster, more precise placement than conventional tweezers
- Simple setup and operation
- Prevents damage to delicate or intricate components
- Cost-effective way to increase throughput

"Cut board time from 4 minutes to 45 seconds. Pickup tool is great."

– K.M.

Specifications

Cabinet size:	18.3W x 5.1H x 8.6D cm (7.22W x 2.00H x 3.38D")
Weight:	1.0 kg (2.2 lb)
Input AC (to power supply):	Universal Multi Voltage, 100/240 VAC, 50/60 Hz
Output DC (from power supply):	24 VDC, 1.04 Amp maximum

Cycle initiate:	Foot pedal, finger switch
Input air pressure:	7.0 bar (100 psi) maximum
Air output:	0–110 inH2O dependent on user setting
Vacuum output:	0–110 inH2O dependent on user setting
Approvals:	CE, UKCA, RoHS, WEEE, China RoHS, TUV
Warranty:	1 year, limited

EFD filling systems provide a fast, neat and easy way to transfer greases, silicones, and other non-pourable fluids from cartridges and bulk containers into 3cc, 5cc, 10cc, 30cc, 55cc, and 70cc syringe barrels.

Manual filling systems are a cost-effective way to eliminate trips to the refilling station and keep production lines running smoothly.

Barrel filling stations are available in sizes 2.5 fl oz, 6 fl oz, 12 fl oz, 20 fl oz, and 32 fl oz (75 ml, 180 ml, 360 ml, 600 ml, and 960 ml) cartridges.

Features and Benefits

- See-through design allows maximum amount of material usage per cartridge
- Fast and accurate filling
- Accommodates 3cc to 70cc syringes
- Small footprint allows easy positioning of multiple units
- Prefilling syringes increases productivity and reduces labor costs

Atlas Syringe Filling Systems

7022446 922BL Filling System
2.5 fl oz (75 ml) cartridge. Comes complete with 0-100 psi (0-7.0 bar) regulator and gauge, retainer and cap assembly with toggle switch, fittings, stand, cartridge with plunger and 5cc, 10cc, and 30/55/70cc syringe barrel fill level plugs.

7022447 926BL Filling System
6 fl oz (180 ml) cartridge. Ships with the same parts as the 922BL.

7022445 920BL Filling System
12 fl oz (360 ml) cartridge. Ships with the same parts as the 922BL.

7013568 Filling System
20 fl oz (600 ml) cartridge. Ships with the same parts as the 922BL.

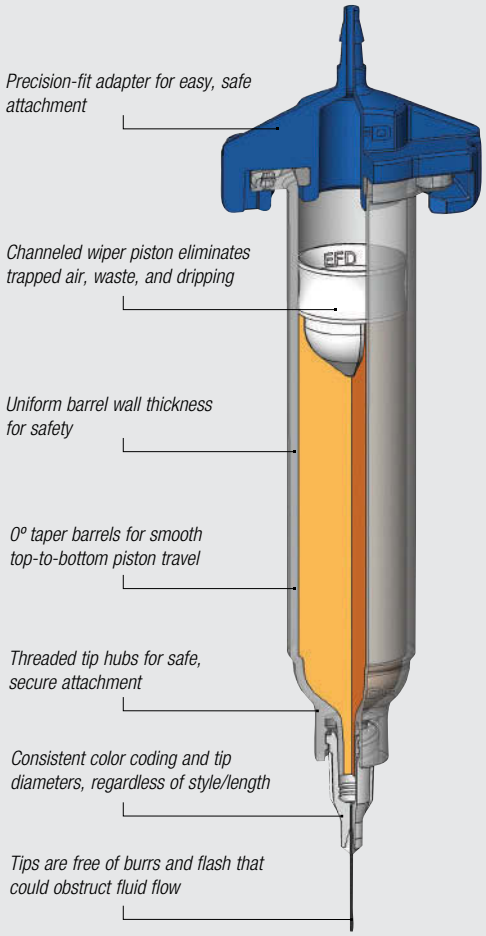
7013901 Filling System
32 fl oz (960 ml) cartridge. Ships with the same parts as the 922BL.

1/10 Gallon Caulking Tube

Filling systems make it simple to transfer silicones and other materials supplied in 1/10 gal cartridges to 3cc, 5cc, 10cc, 30cc, 55cc, or 70cc syringe barrels without waste, mess or air bubbles.

7022452 940BL 1/10 Gallon Caulking Tube
Comes complete with 0-60 psi (0-4.1 bar) regulator and gauge, retainer and cap assembly with toggle switch, fittings, stand, and 3cc, 5cc, 10cc, and 30/55/70cc size syringe barrel fill level plugs.

Optimum Components & Precision Dispense Tips



The Standard in Fluid Dispensing

What makes EFD's Optimum dispensing components better than the rest? Engineered Fluid Dispensing™.

Each patented component has been designed as part of a complete, integrated system that improves yields and reduces costs by producing the most accurate, repeatable fluid deposits possible.

Our syringe barrels are made of a proprietary polypropylene blend that delivers exceptional clarity and dimensional stability. The unique internal design enhances fluid flow and minimizes turbulence and shear during filling and dispensing.

Matching pistons are available in six styles to ensure control for virtually any fluid in any application. When fluid is dispensed, the close tolerance wiping action eliminates waste and residue.

Syringe barrel adapters have a design that facilitates installation/removal, and a positive safety locking action that prevents accidental disengagement.

Free of flash, burrs, or other contaminants, EFD dispensing tips are designed with engineered hub flats for easy twist on, twist off, and SafetyLok threads to ensure safe, positive attachment to the syringe barrel.

Nordson EFD

Optimum Syringe Barrels

EFD produces the highest quality syringe barrels and pistons in the industry. Syringe barrels and pistons are produced in our own silicone-free facilities, where they are subjected to stringent quality control inspections throughout the entire manufacturing process.

"One stop shopping for syringes, barrel adapters, needles and tips along with excellent reference materials and pictures of actual applications to spark new ideas."
– Infinera

Features and Benefits

- Precision fit between syringe and piston ensures consistent fluid deposits
- Wiper piston improves fluid control, keeps fluids from dripping and eliminates waste by wiping the syringe wall clean
- Wide variety of styles and sizes
- Package labels include lot numbers for process control and traceability

SYRINGE BARREL & PISTON SETS

Each box contains syringes and pistons in dust-free packaging.

Size	MOST FLUIDS Clear Barrels White Pistons	UV/Light Block* Amber Barrels White Pistons	Opaque Black Barrels White Pistons	QTY
3cc	7366044	7366041	7366042	(100)
5cc	7366045	–	–	(100)
10cc	7366040	7366039	–	(100)
30cc	7366054	7366051	7366052	(50)
55cc	7366056	7366055	–	(50)

Sets are available in clear for most fluids; transparent amber for UV- and light-sensitive materials (less than 12% visible light from 550 nm or less); and opaque black for complete light blockage.

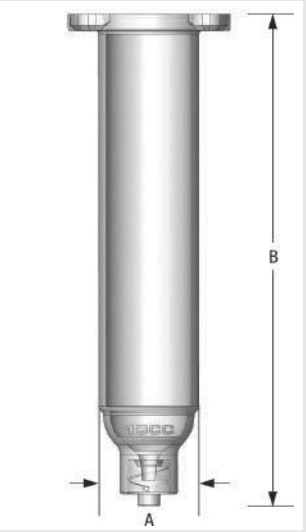
SYRINGE BARRELS

Each box contains syringes and pistons in dust-free packaging.

Size	MOST FLUIDS Clear Barrels	UV/Light Block* Amber Barrels	Opaque Black Barrels	QTY
3cc	7366095	7366092	7366093	(100)
5cc	7366101	7366098	7366099	(100)
10cc	7366089	7366086	7366087	(100)
30cc	7366060	7366057	7366058	(50)
55cc	7366066	7366063	7366064	(50)
70cc	7366070	7366069	–	(50)

Note: 30cc, 55cc, and 70cc syringe barrels accept the same size barrel pistons, end caps, and adapters. Order pistons separately.

*Transparent amber for UV- and light-sensitive materials (less than 12% visible light from 550 nm or less); and opaque black for complete light blockage.



BARREL DIMENSIONS

Size	A	B
3cc	11.1 mm (0.44")	73.0 mm (2.88")
5cc	14.3 mm (0.56")	68.3 mm (2.69")
10cc	19.1 mm (0.75")	88.9 mm (3.50")
30cc	25.4 mm (1.0")	115.9 mm (4.56")
55cc	25.4 mm (1.0")	173.0 mm (6.81")
70cc	25.4 mm (1.0'')	213.1 mm (8.39")

Note: This data is typical and does not constitute a specification.

www.nordsonefd.com/1kOptimum

A piston is inserted into the syringe barrel after it has been loaded with fluid to ensure uniform dispensing, prevent dripping, and eliminate waste by wiping barrel walls clean as fluid is dispensed. Optimum pistons are molded from high-density polyethylene.*

SYRINGE BARREL PISTONS

Size	White SmoothFlow	Beige SmoothFlow	Red SmoothFlow	Orange Flatwall	Blue LV Barrier	Clear Flex	QTY
3cc	7366134	7366126	7366133	7366132	7366128	7366131	(100)
5cc	7366141	7366135	7366140	7366139	n/a	7366138	(100)
10cc	7366125	7366117	7366124	7366123	7366119	7366122	(100)
30/55/70cc	7366084	7366076	7366083	7366082	7366078	7366081	(50)

*Clear Flex pistons are molded from LDPE (low-density polyethylene).

Optimum Pistons

Available in six styles:

White SmoothFlow wiper pistons are used with most fluids.

Beige SmoothFlow pistons are loose-fitting and used with air-entrapped fluids.

Red SmoothFlow pistons are tight-fitting and used with mechanical dispensers.

Orange Flat-walled pistons have a looser fit to prevent "bouncing" when dispensing stringy, air-entrapped fluids.

Blue LV Barrier pistons are for cyanoacrylates and very low viscosity fluids.

Clear Flex pistons are flexible and reduce "bouncing" in viscous fluids while maintaining excellent wall-wiping.

www.nordsonefd.com/Piston-How-To

Optimum End and Tip Caps

End caps and tip caps provide an airtight seal that allows you to prefill syringe barrels or seal partially used syringes between shifts.

End caps feature a precision fit and use a convenient push-button to produce a snug, air-tight seal.

Tip caps have a large knurled gripping surface that simplifies attachment, and a vent that prevents air from being introduced into the syringe barrel during installation. The gripping action of the tip cap is designed to maximize the seal and yet be easily removed by the user. Available in blue or green.

SNAP-TIGHT END AND TIP CAPS

Snap-on end caps provide tight seal.

Size	Blue	Green	QTY
3cc	7366108	7366111	(100)
5cc	7366113	7366116	(100)
10cc	7366104	7366107	(100)
30/55/70cc	7366071	7366074	(50)

Twist-on tip cap seals syringe barrel.

	Blue	QTY	Green	QTY
One size	7012198	(50)	7362541	(1000)

Adapter Assemblies

Lightweight adapters are designed for fast attachment and feature slots that lock securely onto matching tabs on the syringe barrel.

ADAPTER ASSEMBLIES

Size	Blue 0.9 m (3 ft) Hose	Blue 1.8 m (6 ft) Hose	Blue 0.9 m (3 ft) Hose w/ filter trap	Quicksilver 1.8 m (6 ft) Hose
3cc	7012341	7012059	7012063	7364491
5cc	7012054	7012058	7012062	7364490
10cc	7012339	7012057	7012061	7364489
30/55/70cc	7012338	7012056	7012060	7364488

Blue molded one-piece, acetal adapter head with NBR O-ring, flexible polyurethane air hose (5/32" OD X 3/32" ID), male quick-connect, and safety clip. For general use. Quicksilver for use with UltimusPlus dispensers. See next page for Unity adapters.

Optimum Class VI Components

Nordson EFD Optimum Class VI grade syringe barrels are made from biocompatible materials that meet the requirements for United States Pharmacopeia (USP) Class VI resin.

Features and Benefits

- Enhanced biocompatibility for medical use
- Ease of process validation for regulatory approvals
- Market-leading traceability for documentation requirements
- Ability to sterilize to ensure a bacteria-free product

CLASS VI COMPONENTS				
Size	Class VI Clear Barrels	Class VI Clear Pistons	Class VI Clear End Caps	Qty/ Box
3cc	7366097	7366130	7366110	100
5cc	7366103	7366137	7366115	100
10cc	7366091	7366121	7366106	100
30cc	7366062	7366080	7366073	50
55cc	7366068	7366080	7366073	50
CLASS VI TIP CAPS				
7364590				50

Optimum Class VI pistons are designed for use with Class VI barrels only.

Optimum ECO Components

Nordson EFD's Optimum ECO dispensing components are manufactured from sustainably-sourced polyethylene and feature a bio-based content rating of 94% to 96%. This eco-friendly system helps meet corporate sustainability initiatives by using raw resins derived from sugarcane stock versus byproducts of the petrochemical industry.

Features and Benefits

- Eco-friendly components are made from renewable resources
- Minimize consumption and greenhouse gases, reducing carbon footprint
- Barrel transparency allows operator to see fluid level
- Superior freezing properties for premixed fluids compared to standard polypropylene barrels

ECO COMPONENTS				
Size	ECO Natural Barrels	ECO Natural Pistons	ECO Natural End Caps	Qty/ Box
3cc	7366096	7366129	7366109	100
5cc	7366102	7366136	7366114	100
10cc	7366090	7366120	7366105	100
30cc	7366061	7366079	7366072	50
55cc	7366067	7366079	7366072	50
ECO TIP CAPS				
7364679				50

Optimum ECO pistons are designed for use with ECO barrels only.

Unity HiTemp Components

Nordson EFD's disposable Unity™ HiTemp™ syringe barrels provide a cost-effective alternative to syringes commonly used in pneumatic dispensing of hot melt adhesives. The barrels are compatible with Nordson's Unity IC Series and Unity PURJet™ 30 dispensing systems and other standard industry hot melt dispensers.

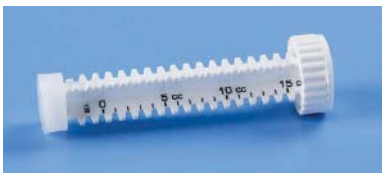
Features and Benefits

- Proprietary materials maintain integrity at high temperatures for up to eight hours
- Disposability reduces downtime and maintenance costs with better cost of ownership compared to standard metal syringes
- Reliable, repeatable hot melt adhesive dispensing at up to 180° C

UNITY COMPONENTS						
Size	Syringe Barrels		Tip Cap White Extreme HiTemp	Adapter Assembly 3ft Tubing	Adapter Assembly 6ft Tubing	Qty/ Box
	HiTemp (125° C)	Extreme HiTemp (180° C)				
30cc	7360475	7360473	7360452	7362348*	7362347*	20

*Adapter assemblies sold individually.

Dial-A-Dose Industrial Syringes



Dial-A-Dose plunger

One-piece plunger

Two-piece plunger

Dial-A-Dose Industrial Syringes

For use with:

- Adhesives
- Epoxies & Silver Epoxies
- Greases & Lubricants
- Sealants
- Solder Pastes

Nordson EFD offers a comprehensive selection of syringes used for fluid packagers in the electronics rework, industrial, dental, and do-it-yourself markets. Dial-A-Dose® syringes are an ideal packaging system for controlled placement of adhesives and sealants. For multi deposit use, EFD Dial-A-Dose syringes offer an innovative, customizable solution to tailor deposits based on application size and other requirements.

Features and Benefits

- Range of sizes, colors, and nozzles
- Self-venting barrels with “lead-in” aid for easy fill
- Single and multi deposit syringes allow manufacturers to make the deposit, cap the syringe, and save for next deposit
- Locking ring ensures exact amount is dispensed

DIAL-A-DOSE INDUSTRIAL SYRINGES

Syringes include integrated molded nozzle. Order plungers and caps separately. White caps molded in LDPE.

					Multi-Dose Plunger	Single-Dose Plunger Options	
Syringe	Size	Material	Color	Cap	Dial-A-Dose	One-Piece	Two-Piece
Nozzle Style: Short Taper 1/16" ID x 7/32" Length							
7660308	15cc	PE	White	7660192	7660343	7660329	7660333
Nozzle Style: Thin Taper 1/16" ID x 1-1/18" Length							
7660277	6cc	PE	White	7660194	–	7660292	–
7022846	15cc	PE	White	7660194	7660343	7660329	7660333
7026529	30cc	PE	White	7660194	–	7660380	–
Nozzle Style: Luer Lock 1/16" ID x 1/4" Length							
7660228	3cc	PP	Clear	7660246	–	7660263	–
7660392	32cc	PP	Amber	7660246	7660452	7660427	7660436

Continued next page

Dial-A-Dose Syringes

From previous page

DIAL-A-DOSE INDUSTRIAL SYRINGES							
					Multi-Dose Plunger	Single-Dose Plunger Options	
Syringe	Size	Material	Color	Cap	Dial-A-Dose	One-Piece	Two-Piece
Nozzle Style: Standard 3/16" ID x 1-13/32" Length							
7660279	6cc	PE	White	7660198	7661311	–	–
7660313	15cc	PE	White	7660198	7660343	7660329	7660333
7660399	32cc	PE	White	7660198	7660452	7660427	7660436
7660508	60cc	PE	White	7660198	7660538	–	7660528
7660571	100cc	PP	Clear	7660198	7660580	–	7660581
Nozzle Style: Luer Slip 3/32" ID x 11/32" Length							
7660229	3cc	PE	White	7660201	–	7660263	–
Nozzle Style: Medium 9/32" ID x 1-13/32" Length							
7660419	32cc	PE	White	7660207	7660452	7660427	7660436
7660482	34cc	PE	White	7660207	7660452	7660427	7660436
Nozzle Style: Cone 3/32" ID x 1-1/2" Length							
7660371	30cc	PE	White	7660201	–	7660380	–
Nozzle Style: Medium 1/4" ID x 1-23/64" Length							
7660517	60cc	PE	White	7660207	7660538	–	7660528
7660552	80cc	PE	White	7660207	7660557	–	7660938
Nozzle Style: Wide 13/32" ID x 1-5/16" Length							
7660522	60cc	PE	White	7660191	7660538	–	7660528
7660553	80cc	PE	White	7660191	7660557	–	7660938
7660572	100cc	PE	White	7660191	7660580	–	7660581
Nozzle Style: Wide Taper 1/4" ID x 7/8" Length							
7660488	36cc	PE	White	7660210	–	–	7660492
Nozzle Style: Luer Slip Variant 1/16" ID x 21/32" Length							
7660239	3cc	PE	White	7660201	–	7660257	–

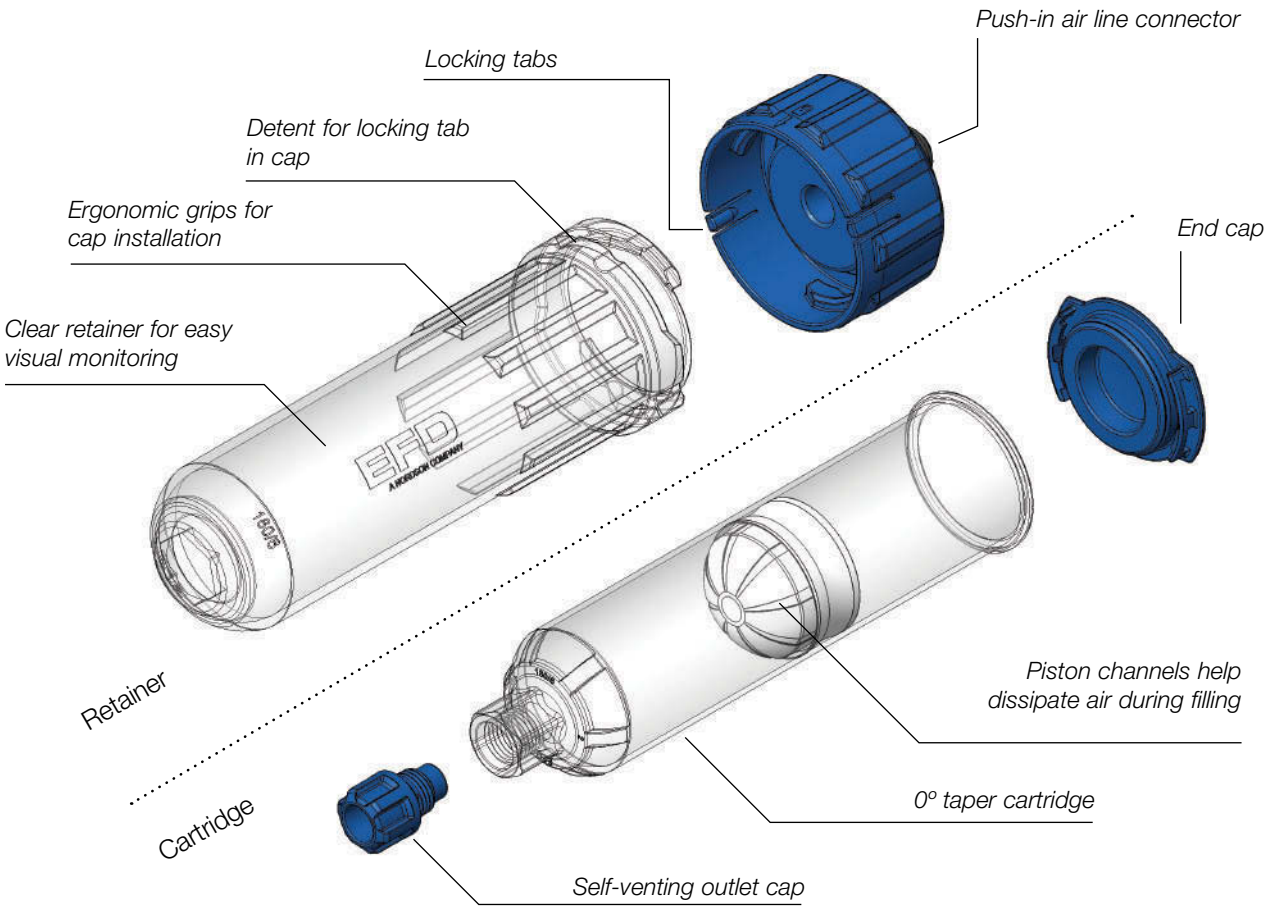
Optimum Cartridge Systems

Optimum cartridges and retainers have been designed to function as a complete, integrated system that improves yields and reduces costs in fluid packaging and dispensing processes.

Cartridge systems are designed for applications that require a reservoir larger than a 70cc syringe barrel. They are available in 2.5 fl oz, 6 fl oz, 12 fl oz, 20 fl oz, and 32 fl oz capacities, and can be used to make timed or visual deposits.

Features and Benefits

- Exceptional clarity to allow visual confirmation of fluid levels
- High-impact strength and dimensional stability
- ZeroDraft™ design ensures that internal diameter is consistent from top to bottom
- Excellent chemical compatibility with a wide range of fluids
- Available in clear, black, amber, and white
- White cartridges are molded from a proprietary blend and have better frozen temperature resistance



CARTRIDGES

Size	Clear	White	Amber	Black	QTY
2.5 fl oz (75 ml)	7012389	n/a	7012390	–	25
6 fl oz (180 ml)	7012398	7361311	7012399	7012400	25
12 fl oz (360 ml)	7012407	7029498	7012408	7012409	25
20 fl oz (600 ml)	7012416	7028361	7012736	7013878	10
32 fl oz (960 ml)	7014088	7028392	7014089	7014091	10

Sets are available in clear for most fluids; transparent amber for UV- and light-sensitive materials (less than 12% visible light from 550 nm or less); and opaque black for complete light blockage.

CARTRIDGE FITTINGS

For both internal molded nozzle cartridges and external threaded cartridges.
For cartridge nozzles, see Precision Dispensing Tips.

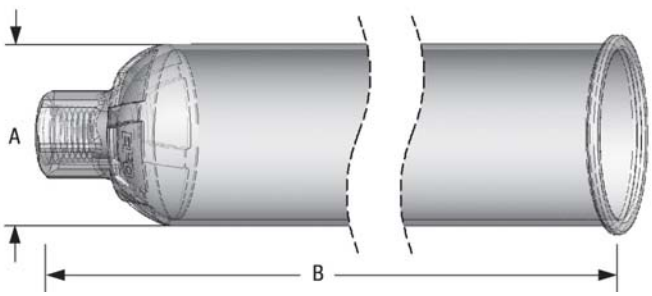
Fitting	Part #	Material	Description
	7022420	Nylon	Barrel loader fitting 90° 1/4 NPT male Female luer lock to barrel elbow
	7022415	Stainless Steel	Barrel loader fitting 1/4 NPT male Female luer lock
	7017020	Black Polypropylene	1/4 NPT x 3/8 compression
	7017014	Black Polypropylene	1/4 NPT x 1/4 compression

TIP ADAPTERS

Adapter	Part #	Material	Description
	7016941	Polypropylene	1/4 NPT standard cartridge tip adapter
	7016945	Nickel-plated Brass	1/4 NPT special purpose tip adapter for 725D Series, 725DA Series, 725HF-SS, 736HPA-NV, and cartridges
	7016948	Black Polypropylene	1/4 NPT tip adapter

CARTRIDGE DIMENSIONS

Size	A	B
2.5 fl oz (75 ml)	43.2 mm (1.70")	98.8 mm (3.89")
6 fl oz (180 ml)	43.2 mm (1.70")	181.5 mm (7.15")
12 fl oz (360 ml)	43.2 mm (1.70")	314.3 mm (12.38")
20 fl oz (600 ml)	68.3 mm (2.69")	249.7 mm (9.83")
32 fl oz (960 ml)	68.3 mm (2.69")	346.4 mm (13.69")



Note: This data is typical and does not constitute a specification.

Cartridge Retainer Systems

Optimum cartridge retainers are molded from high-tensile, clarified resin that permits easy visual monitoring of fluid levels. Large textured ribs provide an ergonomic grip for cap installation.

Retainer caps feature locking tabs that snap securely into detents on the retainer body with an audible click. A push-in air line connector on top of the cap eliminates the need for bayonet connectors.

"EFD is our favorite vendor to deal with – fast, professional, and top notch products."
– Contract Packager

RETAINER SYSTEMS

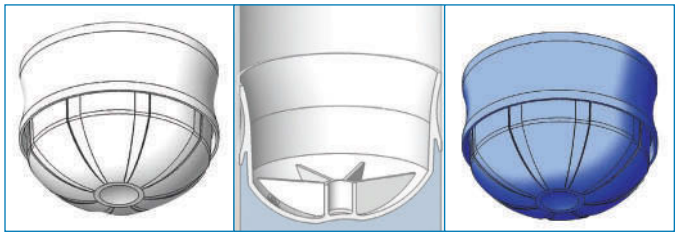
Retainer Systems*		Retainer Bodies	
Part #	Size	Part #	Size
7012430	2.5 fl oz (75 ml)	7013857	2.5 fl oz (75 ml)
7012433	6 fl oz (180 ml)	7013858	6 fl oz (180 ml)
7012436	12 fl oz (360 ml)	7013859	12 fl oz (360 ml)
7012439	20 fl oz (600 ml)	7013860	20 fl oz (600 ml)
7013899	32 fl oz (960 ml)	7013900	32 fl oz (960 ml)

Retainer Cap Assemblies	
Part #	Size
7012531	2.5, 6, 12 fl oz (75, 180, 360 ml)
7012532	20, 32 fl oz (600, 960 ml)

Retainer Cap O-ring Kits (2/pkg.)		
Part #	Material	Size
7014373	Buna	2.5, 6, 12 fl oz (75, 180, 360 ml)
7026914	EPR	2.5, 6, 12 fl oz (75, 180, 360 ml)
7014372	Buna	20, 32 fl oz (600, 960 ml)
7026916	EPR	20, 32 fl oz (600, 960 ml)
7026917	Viton	20, 32 fl oz (600, 960 ml)

*Note: For retainer systems with 100 psi and 15 psi regulators, see Tanks, Reservoirs, and Pumps. The retainer cap O-rings are available in three different materials. Please select the one most compatible with your fluid. Standard O-ring material is Buna.

Cartridge Pistons



Optimum pistons are precision molded from high-density polyethylene. The consistent fit perfectly matches cartridge walls for smooth, unobstructed travel and ensures consistent results in fluid packaging and dispensing processes.

Unique channels help dissipate air during the filling process, reducing or eliminating the need to centrifuge. Dual wiping edges eliminate waste and residue to lower production costs and simplify disposal of used cartridges.

Blue pistons have a smaller leading edge wiper. The looser fit reduces dripping or stringing during the dispensing of very thick fluids and the color makes it easy to see the piston position inside the cartridge.

CARTRIDGE PISTONS			
Part #	Size	Color	Qty/Box
7012419	2.5, 6, 12 fl oz (75, 180, 360 ml)	White	25
7362087	2.5, 6, 12 fl oz (75, 180, 360 ml)	Blue	25
7012421	20, 32 fl oz (600, 960 ml)	White	10

Cartridge End/Outlet Caps

End caps snap securely over cartridge flanges to prevent leaks and fluid contamination. The center push-button presses the cap against the cartridge wall to form a positive, airtight seal.

Self-venting outlet caps feature a large ribbed gripping area that simplifies manual installation, along with precision molded threads and a tapered seat that provides a snug, leakproof seal.

CARTRIDGE END CAPS			
Part #	Size	Color	Qty/Box
7012423	2.5, 6, 12 fl oz (75, 180, 360 ml)	Blue	25
7012425	20, 32 fl oz (600, 960 ml)	Blue	10
CARTRIDGE OUTLET CAPS			
Part #	Size	Color	Qty/Box
7012427*	All	Blue	25

*Tighten to: 10 lbf-in

Precision Dispensing Tips

Optimum Dispensing Tips

EFD produces the highest quality dispensing tips in the industry. All tips are produced in our own silicone-free facilities and subjected to stringent quality control inspections throughout the entire manufacturing process.

"EFD components are more durable than others we have used. We have never encountered a problem with EFD tips and syringes, and that's saying a lot."
– Magnavox

Features and Benefits

- Free of flash, burrs, and contaminants
- Package labels include lot numbers for process control and traceability
- Consistent from style to style and lot to lot
- 360° SafetyLok™ thread ensures safe, positive attachment to syringe barrel
- Engineered hub flats for easy twist on, twist off

Available in multiple styles:

Precision Stainless Steel Passivated stainless steel tips handle a wide range of fluids and applications.

Tapered Smooth flow for application of medium- to high-viscosity fluids — especially thick or particle-filled materials like epoxies, RTVs, and braze pastes.

Flexible Polypropylene shafts reach into hard-to-access areas and will not scratch delicate surfaces. Easily cut to size or angled as needed.

Angled Stainless steel tips available with 45° and 90° bends. Custom bends available.

Brush For spreading glues and greases. Available with soft or stiff bristles.

Specialty For specific applications: Chamfered, PTFE-coated and PTFE-lined, microdot tips, and oval tips.

Ceramic MicroDot For precise micro-deposits as small as 100 µm. Compatible with wide range of fluids, even fine particle-filled materials.

Precision Nozzle For tight tolerance micro-dispensing in CCM, LED, semiconductor, and other high-precision industries.

DISPENSING TIP SAMPLE KIT	
Part #	Description
7013229	Includes a selection of various types and styles of dispensing tips, pistons, tip and end caps — 150+ pieces

www.nordsonefd.com/TipAdvice

Precision Dispensing Tips

PRECISION STAINLESS STEEL TIPS

Gauge	Color		ID mm	ID inch	OD mm	OD inch	Straight 6.35 mm (0.25")	Straight 12.7 mm (0.50")	Straight 25.4 mm (1.0")	Straight 38.1 mm (1.5")	45° Bend 12.7 mm (0.5")	90° Bend 12.7 mm (0.5")	45° Bend 38.1 mm (1.5")	Qty/ Box
14		Olive	1.54	0.060	1.83	0.072	7018029	7018043	7018032	7018035	7018044	7018045	7016906	50
15		Amber	1.36	0.053	1.65	0.065	–	7018068	7018059	7018062	7018069	–	n/a	50
18		Green	0.84	0.033	1.27	0.050	7018107	7018122	7018110	7018113	7018123	7018124	7016908	50
20		Pink	0.61	0.024	0.91	0.036	7018163	7018178	7018166	7018169	7018179	7018180	n/a	50
21		Purple	0.51	0.020	0.82	0.032	7005005	7018233	7018222	7018225	7018234	–	7016910	50
22		Blue	0.41	0.016	0.72	0.028	7018260	7018272	7018263	7018266	7018273	7018274	n/a	50
23		Orange	0.33	0.013	0.65	0.025	7018302	7018314	7018305	7018308	7018315	7018316	n/a	50
25		Red	0.25	0.010	0.52	0.020	7018333	7018345	7018336	7018339	7018346	7018347	n/a	50
27		Clear	0.20	0.008	0.42	0.016	7018395	7005008	n/a	n/a	7018404	7018405	n/a	50
30		Lavender	0.15	0.006	0.31	0.012	7018424	7018433	n/a	n/a	7018434	7018435	n/a	50
32		Yellow	0.10	0.004	0.24	0.009	7018462	n/a	n/a	n/a	n/a	n/a	n/a	50

Burr-free, polished, passivated stainless steel dispensing tips with polypropylene SafetyLok hubs for a secure fit to barrel reservoirs.

- 6.35 mm (0.25") tips: Fast point-to-point dispensing.
- 12.7 mm (0.50") tips: Standard all-around precision dispensing tips.
- 45° and 90° bent tips: Easy access into hard-to-reach areas.

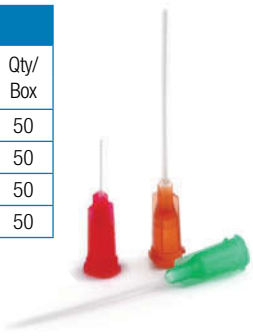
SMOOTHFLOW TAPERED TIPS

Gauge	Color		ID mm	ID inch	Standard	Opaque Rigid	Qty/ Box
14		Olive	1.60	0.063	7018052	7018049	50
16		Grey	1.19	0.047	7018100	7018097	50
18		Green	0.84	0.033	7018158	7018147	50
20		Pink	0.58	0.023	7005009	7005006	50
22		Blue	0.41	0.016	7018298	7005007	50
25		Red	0.25	0.010	7018391	7018370	50
27		Clear	0.20	0.008	7018417	n/a	50

Use with gel cyanoacrylates, UV-cure adhesives, sealants, and particle-filled materials or any medium- to high-viscosity fluid. Standard, flexible translucent tips are molded of polyethylene and the colored versions contain a light-block additive that protects UV-sensitive fluids. Rigid opaque tips are molded of polypropylene and the opacity of the material delivers light-blocking functionality to protect light-sensitive fluids. Standard tapered tips are recommended for best results.

FLEXIBLE TIPS

Gauge	Color		ID mm	ID inch	12.7 mm (0.50")	38.1 mm (1.5")	Qty/ Box
15		Amber	1.25	0.049	7018085	7018080	50
18		Green	0.84	0.033	7018143	7018138	50
20		Pink	0.48	0.019	7018205	7018201	50
25		Red	0.36	0.014	7018366	7018362	50



Flexible polypropylene tubing for application into difficult-to-access areas. Easily drags along edges and around corners and prevents scratching. Tubing can be cut to length.

BRUSH TIPS

Style	50.8 mm (2") length Standard	50.8 mm (2") length High Flow	Qty/ Box
Soft bristle	7022730	7022731	50
Stiff bristle	7015351	7015467	50

Spread glues and greases. Brush tips are made with high quality 6/12 nylon, known for its strength and wear resistance. Soft brush tips are 0.003" diameter level; stiff brush tips are 0.006".

Precision Dispensing Tips

PTFE-COATED TIPS

Gauge	Color	ID mm	ID inch	OD mm	OD inch	12.7 mm (0.50")	Qty/ Box
21	Purple	0.51	0.020	0.84	0.033	7018243	20
22	Blue	0.41	0.016	0.74	0.029	7018290	20
23	Orange	0.33	0.013	0.66	0.026	7018326	20
25	Red	0.25	0.010	0.53	0.021	7018359	20

Controls wicking to stop drips in optical media applications.

PTFE-LINED TIPS

Color	ID mm	ID inch	12.7 mm (0.50")	25.4 mm (1.0")	Qty/ Box
Grey	0.51	0.020	7018256	7005003	50
Pink	0.30	0.012	7018388	7005004	50

Resists clogging of cyanoacrylates. Use for microdot application of low viscosity fluids.

CHAMFERED TIPS

Gauge	Color	ID mm	ID inch	38.1 mm (1.50")	12.7 mm (0.50")	6.35 mm (0.25")	Qty/ Box
18	Green	0.84	0.033	n/a	7018129	n/a	50
20	Pink	0.61	0.024	7018188	n/a	n/a	50
22	Blue	0.41	0.016	7018281	n/a	n/a	50
23	Orange	0.33	0.013	n/a	7018321	n/a	50
25	Red	0.25	0.010	n/a	7018352	n/a	50
27	Clear	0.20	0.008	n/a	n/a	7015236	50
33	Clear	0.10	0.004	n/a	n/a	7018482	25

Use for microdot application of low viscosity fluids.

CERAMIC MICRODOT TIPS

Gauge	Color	ID mm	ID inch	Part #	Qty/ Box
37	Black	0.05	0.002	7364054	1
37	Black	0.05	0.002	7364055	10
37	Silver	0.05	0.002	7364386	1
37	Silver	0.05	0.002	7364540	1

Part number 7364386 only for use with PICO contact dispense valve.

PRECISION NOZZLES

Gauge	ID mm	ID inch	Part # Qty: 1 pc.	Part # Qty: 10 pc.
21	0.50	0.020	7365112	7365121
22	0.40	0.016	7365110	7365119
24	0.30	0.012	7365108	7365117
25	0.25	0.010	7365107	7365116
27	0.20	0.008	7365106	–
30	0.15	0.006	7365105	7365114
32	0.10	0.004	7365104	7365113

OVAL TIPS

Gauge	Color	12.7 mm (0.50")	Qty/ Box
15	Amber	7018078	50
18	Green	7024653	50
23	Orange	7024656	50

Flat ribbon deposits of thick pastes, sealants & epoxies.

TIP SHIELDS

Size	Color	Part #	Qty/ Box
3cc	Red	7017715	10
5cc to 70cc	Black	7017717	10

Reusable tip shields for light-sensitive and UV-cure adhesives. Fits over dispensing tip hub.

POLYETHYLENE NOZZLES

ID cm	ID inch	length cm	length inch	Part #	Qty/ Bag
0.318	0.125	6.35	2.5	7018555	10
0.157	0.062	6.35	2.5	7018557	10
0.157	0.062	10.6	4.0	7018559	10
0.08	0.031	10.6	4.0	7018561	10

Polyethylene nozzles thread into all cartridge sizes and 725 Series and 736HPA-NV valves. 1/4 NPT (6.35 mm) thread.

METAL NOZZLES

Gauge	ID mm	ID inch	Part #	Qty/ Bag
7	3.8	0.150	7014850	1
8	3.4	0.135	7014851	1
10	2.7	0.106	7014848	1
12	2.2	0.085	7014842	1
14	1.6	0.063	7014844	1
16	1.2	0.047	7014846	1

Metal nozzles thread into all cartridge sizes to fit 725 Series and 736HPA-NV valves. 38.1 mm (1 1/2") long metal nozzles with 1/4 NPT.

Precision Dispensing Tips

Applications	DISPENSING TIPS						
	Tapered	Stainless Steel	PTFE-Lined	Flexible	MicroDot Ceramic	MicroDot Stainless Steel	Precision Nozzle
Very Low Viscosity Fluids	X	●	●	●	●	●	●
Particle-Filled Pastes	●	●	▲	X	●	▲	●
Microdot Deposits	X	●	▲	●	●	●	●
Fluid is Reactive to Metal	●	X	●	●	●	X	X
Depositing in Recesses	▲	●	●	▲	●	●	X
Spreading/Smearing	●	▲	●	▲	●	●	●
Fast-Curing Glues	●	▲	●	●	▲	▲	X
Beading, Striping	●	●	●	▲	●	▲	●
Easily Scratched Substrates	●	▲	●	●	●	▲	▲
Fluids							
Adhesives	●	●	●	●	●	●	●
Anaerobics	●	▲	●	▲	●	X	X
Conformal Coatings	●	▲	▲	X	▲	▲	●
Cyanoacrylates	●	▲	●	●	●	▲	▲
Gel Cyanoacrylates	●	▲	●	▲	●	▲	▲
Epoxies	●	●	●	X	●	●	●
Greases	●	●	●	X	●	●	●
Light-Cure Adhesives	●	▲*	▲*	X	▲	●	●
Oils	●	●	●	▲	●	●	●
Paints	●	●	●	X	●	●	●
Sealants	●	▲	▲	X	●	●	●
Silver Epoxy	X	▲+	X	X	●	▲	●
Solder Paste/Braze Pastes	●	●	▲	X	●	▲	●
Solder Masks	●	●	▲	X	●	●	●
Solvents	X	●	●	●	●	●	●
UV-Cure Adhesives	●**	▲*	▲*	▲	▲	●	●

*OK if used with tip shield, part #7017715 or 7017717.
+Chamfered tips are recommended for best results.
**Standard tapered tips are recommended for best results.

Key
- ● Recommended
- ▲ Satisfactory
- X Do not use

Valve Selection Guide

Jetting / Dispense / Spray

Choosing the right dispense valve for an application starts with the fluid.

Use this guide to:

- See which Nordson EFD valves work with specific fluids and applications
- Compare the features of EFD valves and controllers
- Select a type of fluid for an application

For example, if you know you want to use a jet dispensing valve because of its significant precision and fast cycle rate, you could use this guide to identify the types of fluids most suitable for jetting.

Benefits

- Performance that's proven for millions of dispense cycles
- Long service life with minimal maintenance
- Worldwide technical assistance
- Global application testing labs

Please note this guide does not include every EFD dispensing solution available. It's important to speak with an experienced EFD application specialist when choosing the right solution for your application.

Nordson EFD

FLUIDS	VALVE APPLICATIONS										
	Microdots*	Dots	Jetting	Potting	Encapsulating	Lines/Stripes	Filling / Packaging	Microspray	Spray	Internal Spray	Internal Band
Accelerators	xQR41	752V-UHSS	PICO Pµlse / XP P-Jet, P-Dot	—	—	xQR41V	752V-UHSS	781Mini	781S-SS	782RA	7860C-RS
Activators	xQR41	752V-UHSS	PICO Pµlse / XP P-Jet, P-Dot	—	—	xQR41V	752V-UHSS	781Mini	781S-SS	782RA	7860C-RS
Alcohol	xQR41	752V-UHSS	PICO Pµlse / XP P-Jet	—	—	xQR41V	752V-UHSS	781Mini	781S-SS	782RA	7860C-RS
Anaerobics	xQR41 PEEK** 752V-UHSS	xQR41 PEEK** 752V-UHSS	PICO Pµlse / XP P-Jet	—	—	752V-UHSS	725HF-A	—	—	—	7860C-RS
Conformal Coatings	xQR41	752V-UHSS	PICO Pµlse / XP P-Jet	—	752V-UHSS	752V-UHSS	725HF-SS	781Mini	781S-SS	—	—
Copper Braze Paste	—	725DA-SS	—	—	—	725DA-SS	725HF-SS	—	—	—	—
Cyanoacrylates	xQR41 PEEK** 752V-UHSS	xQR41 PEEK ** 752V-UHSS	PICO Pµlse / XP P-Jet, P-Dot	—	—	752V-UHSS	—	—	—	—	7860C-RS
Electrolytes	xQR41	752V-UHSS	PICO Pµlse / XP P-Jet	—	—	—	752V-UHSS	781Mini	781S-SS	—	—
Epoxies	xQR41	752V-UHSS	PICO Pµlse / XP P-Dot	725DA-SS	725DA-SS	725DA-SS	725HF-SS	—	—	—	—
Fluxes, Liquid	xQR41	752V-UHSS	PICO Pµlse / XP P-Jet	—	—	752V-UHSS	725HF-SS	781Mini	781S-SS	—	—
Fluxes, Paste	xQR41	725DA-SS	PICO Pµlse / XP P-Jet, P-Dot	—	—	725DA-SS	725HF-SS	—	—	—	—
Grease: low pressure *(to 7.0 bar ,100 psi)*	xQR41	725DA-SS	PICO Pµlse / XP P-Jet, P-Dot	—	—	725DA-SS	725HF-SS	—	781S-SS	—	—
Grease: med. pressure *(to 20.7 bar, 300 psi)*	xQR41	736HPA-NV	PICO Pµlse / XP P-Jet, P-Dot	—	—	736HPA-NV	736HPA-NV	—	781S-SS	—	—
Grease: high pressure *(to 172 bar, 2500 psi)*	—	736HPA-NV	PICO Pµlse / XP P-Jet, P-Dot	—	—	736HPA-NV	736HPA-NV	—	—	—	—
Inks / Paints	xQR41	752V-UHSS	PICO Pµlse / XP P-Jet	—	—	xQR41V	725HF-SS	781Mini	781S-SS	782RA	7860C-RS
Oils	xQR41	752V-UHSS	PICO Pµlse / XP P-Jet, P-Dot	—	—	xQR41V	725HF-SS	781Mini	781S-SS	782RA	7860C-RS

*Note: For microdot applications requiring general purpose tip sizes between 27 and 33 gauge, specify valve model xQR41 in place of 741V-SS. **Conditional use with cyanoacrylates.

Application Definitions

Microdots: Any deposit having a volume less than 5 µl (5 µl = 5 microliters = 5/1000 cc).

Lines/Stripes: A line, bead or stripe of material.

Dots: Any deposit having a volume larger than 5 µl.

Filling/Packaging: Filling containers such as small bottles, cartridges, and tubes.

Jetting: Applying microdots, dots, lines, stripes, and encapsulates without making contact with a surface – also called non-contact dispensing.

Microspray: Narrow spray pattern capability as small as 1 mm (0.04") wide.

Potting: Filling a cavity usually containing an electronic device, electronic circuit, or wires.

Spray: Applying fluids by using low pressure air to break the fluid into fine droplets for coating or marking.

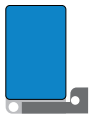
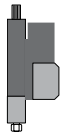
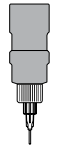
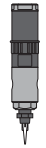
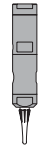
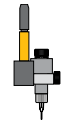
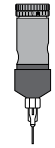
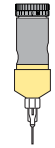
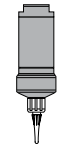
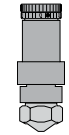
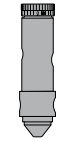
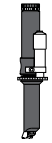
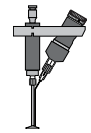
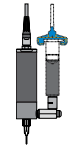
Encapsulating: Applying a coating to an electronic component for protection from mechanical or environmental damage.

Internal Spray: Spraying the inside diameter of holes and cylinders.

FLUIDS	VALVE APPLICATIONS										
	Microdots	Dots	Jetting	Potting	Encapsulating	Lines/Stripes	Filling / Packaging	Microspray	Spray	Internal Spray	Internal Band
Optical Dyes / Lacquers	702M-SS	702M-SS	PICO Pµlse / XP	—	—	702M-SS	—	—	—	—	—
Primers	xQR41	—	PICO Pµlse / XP P-Jet	—	—	—	—	781Mini	—	782RA	—
Reagents	754V-SS[1]	754V-SS[1]	PICO Pµlse / XP P-Jet	—	—	754V-SS[1]	754V-SS[1]	781Mini	781S-SS	—	—
RTV/Sealants *low pressure*	xQR41	725DA-SS	P-Jet P-Dot	725DA-SS	725DA-SS	725DA-SS	725HF-SS	—	—	—	—
RTV/Sealants *medium / high pressure*	xQR41[2]	736HPA-NV	P-Jet P-Dot	736HPA-NV	736HPA-NV	736HPA-NV	736HPA-NV	—	—	—	—
Saline	—	754V-SS[1]	PICO Pµlse / XP P-Jet	—	—	754V-SS[1]	754V-SS[1]	—	—	—	—
Silicones	—	736HPA-NV	PICO Pµlse / XP P-Jet, P-Dot	736HPA-NV	736HPA-NV	736HPA-NV	—	781Mini	781S-SS	—	—
Silicone Oils	xQR41 741MD	xQR41V 741V-SS	PICO Pµlse / XP P-Jet, P-Dot	—	—	xQR41V 741V-SS	—	—	—	—	—
Solder Resists	—	725DA-SS	PICO Pµlse / XP P-Jet, P-Dot	—	—	725DA-SS	725HF-SS	—	—	—	—
Solvents	xQR41 741MD	xQR41V 741V-SS	PICO Pµlse / XP P-Jet	—	—	xQR41V 741V-SS	752V-UHSS	781Mini	781S-SS	782RA	7860C-RS
Solder Pastes	794	794	P-Jet SolderPlus	—	—	794	—	—	—	—	—
Thermal Interface Materials (TIM)	794-TC	794-TC	—	—	—	794-TC	—	—	—	—	—
UV-cure & Light-cure	xQR41 741MD	752V-SS	PICO Pµlse / XP P-Jet, P-Dot	752V-SS	752V-SS	xQR41V 752V-SS	725HF-A	—	—	—	—
UV-Cure with Anaerobics	xQR41 752V-SS	xQR41 752V-SS	PICO Pµlse / XP P-Jet	752V-SS	752V-SS	752V-SS	725HF-A	—	—	—	—
Water	xQR41	752V-UHSS	PICO Pµlse / XP P-Jet	—	—	xQR41V 741V-SS	752V-UHSS	781Mini	781S-SS	782RA	7860C-RS
White Glue	—	725DA-SS	P-Jet	—	—	725DA-SS	725HF-SS	—	—	—	7860C-RS

[1] **Important Note:** For dispensing applications of low- to medium-viscosity fluids where a 316L SS wetted fluid body with aseptic fluid flow path is preferred, choose the 754V-SS diaphragm valve.
[2] xQR41 for medium pressure only.

Maximum operating temperatures of EFD valves should not exceed 43° C (110° F) except for the 736HPA-NV, 741V, 781S, and 781Mini Series valves, which can operate up to 110° C (215° F).

VALVE FEATURES	VALVES															
	 PICO Pμlse / Pμlse XP	 Liquidyn	 702M-SS	 725DA-SS	 725HF-SS	 725HF-A	 736HPA-NV	 xQR41 / V 741V / MD	 752V-SS	 752V-UHSS	 754V-SS	 781Mini 787MS-SS	 781S-SS	 782RA	 7860C-RS	 794 794-TC
Adjustable fluid flow	✓	P-Jet	✓	✓	–	–	–	✓	✓	✓	✓	✓	✓	✓	–	✓
Air cutoff	–	✓	–	–	–	–	–	–	–	–	–	✓	✓	✓	✓	–
Cycle rate ≥ 150Hz	1000Hz[1]	P-Jet P-Dot	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Fail-safe normally closed	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–	–
FDA-compliant wetted parts	–	–	✓	✓	✓	✓	–	✓	✓	✓	✓	✓	✓	–	✓	–
Fluid body	303 SS[6]	303 SS[6]	303 SS	303 SS	303 SS	Acetal	303 SS	303 SS[4]	Acetal[7]	UHMW[2] / [7]	316L	303 SS	303 SS	–	–	440C / Tungsten Carbide
Modular design	✓	✓	–	–	–	–	–	xQR41 / V	–	–	–	✓[5]	–	–	–	–
Quick Release maintenance	✓	–	–	–	–	–	–	xQR41 / V	–	–	–	✓[5]	–	–	–	✓
Small form factor	–	–	✓	–	–	–	–	xQR41 / V	–	–	–	✓[5]	–	–	–	–
Snuff-back cutoff	–	–	–	✓	✓	✓	✓	–	–	–	–	–	–	–	–	✓
Stroke control reference	–	–	✓	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	–	–
Tamper-resistant stroke control	–	–	✓	–	–	–	–	O[3]	O	✓	✓	–	O	O	–	–
UHMW[2] polymer diaphragm	–	–	✓	✓	✓	✓	–	–	✓	✓	PTFE	–	–	–	–	–
303 stainless steel air cylinder	–	–	✓	–	–	–	✓	xQR41 741V-SS	✓	✓	316L	✓	✓	–	–	–

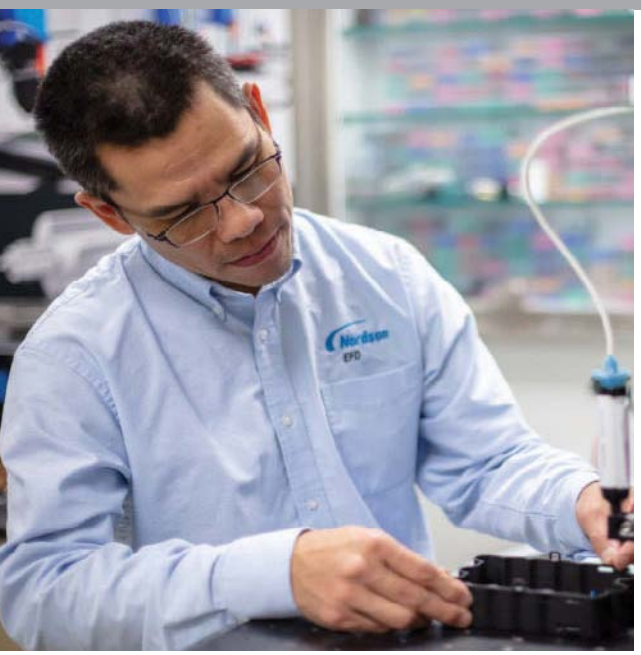
[1] With approved conditional settings [2] Ultra High Molecular Weight polyethylene [3] 741V-SS model only [4] Available with PEEK fluid body for xQR41 model only
[5] 781Mini model only [6] Available with PEEK fluid body for PICO *Pμlse*, P-Dot, and P-Jet [7] Optional stainless steel fluid body

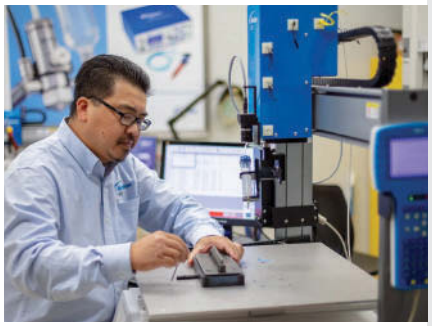
✓ Applicable | O Optional | – Not applicable

CONTROLLER FEATURES	VALVE CONTROLLERS								
	PICO Touch / XP	V200	9000	8000	8040	7160RA	7194	7100	7140
	Jet Valve Control	**Jet Valve Control**	**Dual Valve Control**	**Multi Valve Control**	**Multi Spray Valve Control**	**Radial Spinner/ Spray Valve Control**	**Auger Valve Control**	**Dispense Valve Control**	**Spray Valve Control**
Recommended valve(s)	PICO Pµlse / XP	P-Jet, P-Dot, P-Jet SolderPlus	702, 725, 736, 741, 752, 754, xQR41 / V	702, 725, 736, 741, 752, 754, xQR41 / V	781S, 781Mini, 787MS	782RA, 7860C-RS Spinner	794, 794-TC	702, 725, 736, 741, 752, 754, xQR41 / V	781S, 781Mini, 787MS
Air pressure display	Touchscreen	Digital	Digital	Analog	Analog	Digital	Digital	Digital	Analog
Auto sequence mode	–	–	✓	–	–	–	–	–	–
Cycle rate	1000Hz[1]	280Hz / 150Hz	500Hz	>600/minute	>400/minute	>400/minute	>400/minute	>600/minute	>400/minute
Digital time set and display	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dual 24W temperature control	–	–	✓	–	–	–	–	–	–
5-micron filter/ regulator	–	–	Included	Included	Included	Included	Included	Included	Included
I/O communication-PLC	✓	✓	✓	–	–	–	–	–	–
I/O interface circuitry	✓	✓	✓	✓	✓	✓	✓	✓	✓
Independent multi-valve control	Single channel	Single channel	2-channel control	4-channel control	2-channel control	Single channel	Single channel	Single channel	Single channel
Low air pressure sensing	✓	–	< 4.1 bar (60 psi)	< 4.1 bar (60 psi)	< 4.1 bar (60 psi)	< 4.1 bar (60 psi)	< 4.1 bar (60 psi)	< 4.1 bar (60 psi)	< 4.1 bar (60 psi)
Nozzle air shutoff delay	–	–	–	–	Adjustable 0 to 9.99 sec.	Adjustable 0 to 2.5 sec.	–	–	Adjustable 0 to 9.99 sec.
On the fly adjustability	✓	✓	✓	✓	✓	✓	✓	✓	✓
Panel mount/panel cutout size	142 x 133 mm (5.6 x 5.25")	450 x 125 mm (18 x 5")	257.2 x 96.8 mm (10.13 x 3.81")	183.6 x 51.6 mm (7.23 x 2.03")	183.6 x 51.6 mm (7.23 x 2.03")	226.3 x 68.8 mm (8.91 x 2.71")	226.3 x 68.8 mm (8.91 x 2.71")	142.9 x 68.8 mm (5.62 x 2.71")	205.4 x 68.8 mm (8.08 x 2.71")
Pre-dispense time cycle delay	–	–	–	✓	–	–	–	–	–
Programmable	✓[2]	✓	✓	✓	✓	✓	✓	✓	✓
Purge control	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spike & hold capability	–	–	✓	–	–	–	–	–	–
Test cycle verification	✓	✓	✓	✓	✓	✓	✓	✓	✓

[1] With approved conditional settings [2] Programmable lockout

✓ Applicable | O Optional | — Not applicable





Expert Application Testing

Nordson EFD offers a detailed process evaluation by experienced fluid dispensing experts at multiple EFD dispensing labs around the world.

EFD Global Application Labs are located in the USA, Brasil, the UK, Czech Republic, France, Germany, Russia, Spain, China, Japan, Korea, and other countries for expert help, fast response, and easy convenience.

Application testing is especially helpful to customers in selecting the appropriate PICO or pneumatic jet valve components, to make sure the system meets the requirements of your specific application.

Features and Benefits

- Testing by knowledgeable, dispensing experts
- Testing in EFD global labs and/or at customer facilities
- Testing with actual customer parts and assembly fluids, or with EFD sample test materials
- Testing with a range of recommended EFD solutions, including PICO and pneumatic jetting valves and EFD automated dispensing robots
- Detailed test reports
- May include videotaped results

For details or to request an appointment, contact EFD at info@nordsonefd.com or go to www.nordsonefd.com/testing.

"Your technical assistance is formidable. Your help in solving our problems with the cyanoacrylate application was very important to keep our production line running correctly. Thank you."

– Kodak

The BackPack™ Valve Actuator 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.

- High-speed cycle capability. Cycle rates exceed 60–80Hz
- Actuation speed as low as 5–6 milliseconds
- Smaller deposit size capability due to faster valve actuation speed
- Improves process variation for better dot-to-dot consistency

BackPack Valve Actuator

For use with:

752V Series Valves

xQR41 Series Valves

741 Series Valves

7361396 BackPack
BackPack is available preinstalled on new valves, or can be ordered separately to retrofit existing valves.

www.nordsonefd.com/BackPackVideo

The Laser Light Barrier installs easily on Liquidyn P-Jet and P-Dot jet valves to provide precise and reliable process monitoring, essential for error-free production.

- Precise detection of even the smallest deposit volumes
- Standardized output signal
- Only requires compressed air
- Robust operation regardless of environmental conditions

Laser Light Barrier

For use with:

Liquidyn Series Valves

7825237 Laser Light Barrier
Laser Light Barrier kit includes the signal amplifier, light barrier, spacer, and M2 screw. A mounting bracket is sold separately.

The patent-pending Needle Nozzle Cleaning Station is designed to automate the cleaning of needle valve dispensing tips and PICO / Liquidyn jet valve nozzles.

- Easy to operate
- "Plug and play" into your existing automated dispensing process
- Only requires compressed air
- Compatible with most fluids

Needle Nozzle Cleaning Station

For use with:

xQR41 Series Valves

741 Series Valves

PICO *Pµlse* Contact Valves

Liquidyn Series Valves

7825249 Needle Nozzle Cleaning Station
Needle Nozzle Cleaning Station includes adapters for use with PICO / Liquidyn nozzles and Optimum stainless steel dispense tips.

www.nordsonefd.com/NNCS

Valve Accessories

VALVE ACCESSORIES

Part	Part #	Valve	Description
	7020507	All valves	Universal valve mount
	7020509		Universal valve mount with #7007003 rod
	7021057	All valves	Universal stainless steel valve stand with cast aluminum base Includes universal valve mount/rod.
	7021054	750 Series	Valve stand
	7021056	781 Series	Valve stand
	7021059	725D Series	Valve stand
	7021070	750 Series	Stainless steel mounting rods are 1.3 cm diameter x 17.8 cm long (0.5" x 7"). Designed for specific valves.
	7007003	741 / 781 Series	
	7021079	725D Series	
	7002002	All valves	Filter/Regulator provides dry, filtered air to controllers and reservoirs. Traps moisture and particles over five microns. 7.0 bar (100 psi) regulator and gauge.
	7016548		Filter/Regulator with coalescer removes remaining liquid aerosols from air supply. Traps moisture and particles over five microns. 7.0 bar (100 psi) regulator and gauge. Recommended for systems dispensing cyanoacrylates.
	7028718	All valves except 702V, 750V / 751V horizontal mount versions and 794 Series Valves	Electric DispensGun valve handle that is designed for use with an EFD ValveMate controller. The electric configuration can produce either timed, repeatable deposits or operator-controlled deposits.
Stroke control knob Stroke reference ring 	7021282	750 Series (stainless steel)	Calibration ring on the stroke control knob provides 25 graduations per turn for exact stroke reference.
	7007034	782RA (aluminum)	
	7021621	741 / 781 Series (aluminum)	
Removable stroke control knob 	7021266	741 / 781 Series	Tamper-resist upgrade kit
	7021503	750 Series	
	7021500	782RA	
	7021523	Liquid manifolds can supply liquid from one reservoir to as many as (4) valves Manifold and hose compression fittings are black polypropylene	Liquid manifold, 3 outlets, 9.5 mm (3/8") OD tubing
	7021524		Liquid manifold, 3 outlets, 6.4 mm (1/4") OD tubing
	7021525		Liquid manifold, 4 outlets, 9.5 mm (3/8") OD tubing
	7021526		Liquid manifold, 4 outlets, 6.4 mm (1/4") OD tubing

Order Valve Replacement Parts:
www.nordsonefd.com/ValveKits

Valve Fittings

VALVE FITTINGS				
Fitting	Part #	Description	Color	Recommended Use
	7014840	1/4 hose to barrel adapter, polypropylene	White	Dispensing wand inlet from barrel, 1/8" ID hose
	7365853	1/4 pass-thru bulkhead, nylon	Black	1.0 liter tank outlet to 1/4" OD tubing
	7014708	1/4 NPT x 1/4 NPT stainless steel street elbow	Silver	19 liter top-ported tank outlet
	7365855	3/8 pass-thru bulkhead, nylon	Black	5 liter top-ported tank outlet to 3/8" OD tubing, pass-thru style
	7012255	M5 x 4 mm push-in elbow fitting	Silver	754V aseptic valve
	7014845	Barrel adapter 3/32 barb, polypropylene	White	Dispensing wand inlet from barrel 3/32" ID hose
	7021308	Barrel to 750V input nickel-plated brass	Silver	750V inlet to barrel
	7021464	Elbow fitting: 1/8 NPT x 1/8 barb, polypropylene	Clear	752V and 741V Series inlet to 1/8" ID tubing
	7020136	Fitting: 1/8 NPT x 3/8 compression elbow, nylon	Black	1/8 NPT elbow to 3/8" OD tubing
	7021489	Fitting, fluid: 1/8 barb – 754V	Silver	754V inlet to 1/4" OD x 1/8" ID tubing
	7021491	Fitting, fluid: 4 mm barb – 754V	Silver	754V inlet to 6 mm OD x 4 mm ID tubing
	7021299	Fitting: 1/4-28 to 1/8 barb, stainless steel	Silver	750V inlet to 1/8" ID tubing
	7021309	Fitting: 1/4-28 to barrel black, polypropylene	Black	750V inlet to barrel
	7021300	Fitting: 1/4-28 x 1/8 barb, black, polypropylene	Black	750V inlet to 1/8" ID tubing
	7021036	Fitting: 1/4 NPT x 3/8 compression elbow, stainless steel	Silver	725HF-SS inlet fitting
	7014733	Fitting: 1/8 NPT x 1/4 compression elbow, stainless steel	Silver	725D-SS, 725DA-SS, 741V-SS, 781S-SS inlet to 1/4" OD tubing

Order Valve Replacement Parts:
www.nordsonefd.com/ValveKits

Valve Fittings

VALVE FITTINGS

Fitting	Part #	Description	Color	Recommended Use
	7014732	Fitting: 1/8 NPT x 3/8 compression elbow, stainless steel	Silver	725D-SS, 725DA-SS, 741V-SS, and 781S-SS Series inlet to 3/8" OD tubing
	7021532	Fitting: 1/8 NPT x 1/4 compression, black, polypropylene	Black	725D, 741V, 752V, and 781S Series inlet to 1/4" OD tubing
	7007038	Fitting: 1/8 NPT x 3/8 compression, black, polypropylene	Black	725D, 741V, 752V, and 781S Series inlet to 3/8" OD tubing
	7020894	Fitting: Cartridge to 1/8 NPT elbow, stainless steel	Silver	725D-SS, 725DA-SS, 741V-SS, and 781S-SS Series inlet from cartridge
	7020673	Fitting: M5 x 1/8" ID barb stainless steel, elbow	Silver	702 Series inlet to 1/8" ID x 1/4" OD tubing
	7361411	Fitting: 90° luer inlet	White	xQR41, 781Mini for direct syringe barrel feed connection
	7020905	Fitting: RTV cartridge to 1/8 NPT brass	Brass	725D, 725DA to threaded caulking cartridge
	7017014	Fitting: 1/4 NPT x 1/4 compression, black, polypropylene	Black	Cartridge and 19 liter tank outlet to 1/4" OD tubing
	7017020	Fitting: 1/4 NPT x 3/8 compression, black, polypropylene	Black	Cartridge and 19 liter tank outlet to 3/8" OD tubing
	7021038	Fitting: 1/4 NPT x 3/8 compression elbow, polypropylene	White	Standard 725HF-SS and 725HF-A inlet fitting
	7021499	Fitting: 1/8 NPT x 1/4 compression elbow, black, polypropylene	Black	725D, 741V, 752V, and 781S Series inlet to 1/4" OD tubing
	7020903	Fitting: Barrel to 1/8 NPT elbow, black, polypropylene	Black	725D, 741V, 752V, 781S Series inlet to barrel
	7020671	Fitting: M5 x 1/8" ID barb, stainless steel	Silver	702 Series inlet to 1/8" ID x 1/4" OD tubing
	7020669	Fitting: M5 x 3/32" ID barb, stainless steel	Silver	702 Series inlet to 3/32" ID x 5/32" OD tubing

Valve Fittings / Tip Adapters

VALVE FITTINGS

Fitting	Part #	Description
	7021867	Inlet fitting assembly, ELB, 303SS
	7021541	Polypropylene Y-fitting for 1/4" ID tubing
	7007017	Polypropylene Y-fitting for 1/8" ID tubing
	7021537	Black nylon Y barb fitting for 3.2 mm (1/8") ID tube
	7021539	Polypropylene Y-fitting for 3/32" ID tubing
	7021545	Black plastic push-in fitting for 4.0 mm (5/32") OD tube

VALVE TIP ADAPTERS

Adapter	Part #	Valve	Material	Description
	7016948	725 Series	Polypropylene	Tip adapter 1/4 NPT, black
	7016945	725 Series	Nickel-plated brass	Tip adapter 1/4 NPT
	7007026	741MD-SS, 741V Series	Stainless steel	Tip adapter 741V, 0.046"
	7007027	741MD-SS, 741V Series	Polypropylene	SafetyLok collar for 741MD-SS, 741V Series
	7021227	741MD-SS	Stainless steel	Tip adapter with retaining nut
	7021312	750V-SS	Acetal	Tip adapter
	7021317	751V	Nylon	Tip adapter
	7014852	750V	Polypropylene	Tip adapter
	7014835	752V-UHSS	Polypropylene	Tip adapter, natural

Precision Jetting Valve Systems

PICO / Liquidyn

Nordson EFD jet valve systems offer unparalleled speed and accuracy in non-contact dispensing, even for your most challenging applications.

Jetting, or non-contact dispensing, allows manufacturers to dispense small amounts of fluids at faster speeds without sacrificing accuracy. The results include reduced waste, rework, and rejects, and higher throughput yields.

About Piezo Technology

PICO® jet valves incorporate a piezoelectric actuator composed of stacked ceramic coins that expand and contract in response to changes in voltage supplied by the PICO controller. The piezo actuator connects to a vertical rod that mates with a tappet stem within a spring-energized "jetting" cartridge. The tappet stem has a wear-resistant ceramic sealing ball at its lower end.

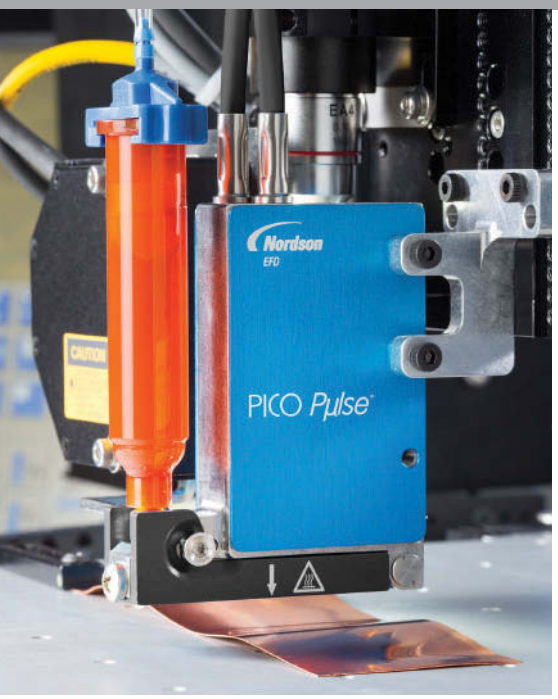
When the valve is closed, the ball is seated in the valve nozzle plate to prevent fluid flow between cycles. The unique precision engineering and machining of these critical components create an exceptional dispensing valve with the ability to apply precise, accurate micro-deposits of assembly fluid.

When voltage is applied to the actuator, the rod and cartridge sealing ball are raised so that the pressurized fluid can flow to the nozzle. When the voltage is changed, the rod and tappet stem sealing ball descend rapidly to "jet" the fluid out of the nozzle and onto the substrate.

Pneumatic Jetting

Liquidyn® pneumatic jet valves deliver precise, consistent noncontact dispensing of low- to high-viscosity fluids and feature easily exchangeable dispensing nozzles to meet a wide range of application requirements. Rigorously tested to withstand highly-industrial environments, Liquidyn pneumatic jet valves also feature a low cost of ownership.

Nordson EFD



PICO *Pulse* Jet Valve

7361283 PICO *Pulse* Jet Valve HD
For heavy duty applications with cycle rates greater than 250Hz.

PICO *Pulse*® modular jetting technology removes the barrier between speed and accuracy. Even at max speed of 1000Hz continuous*, the PICO *Pulse* non-contact dispense valve provides industry-leading accuracy in deposit consistency and placement for your most challenging applications.

Non-contact jet valve systems make it possible to apply fluid in hard-to-access areas or onto uneven or delicate substrates where a dispensing needle cannot be used.

Features and Benefits

- Exchangeable, modular design for greater configurability
- Tool-free latch allows fast, easy serviceability and reduces downtime
- Capability to jet low- to high-viscosity fluids creats flexibility to meet changing needs
- Dispenses at up to 1000Hz continuous, with up to 1500Hz maximum bursts*
- Variable stroke for precise dispensing control
- Optional PEEK wetted parts resist curing from reactive adhesives

* With approved conditional settings.

For use with

- Adhesives & UV-cure Adhesives
- Conductive Epoxies
- Greases & Oils
- Hydrous Solutions
- Liquid Polymers
- Organic Solvents
- Underfills

"We are saving 2 to 4 hours on every 100 parts."

– Grimes Aerospace

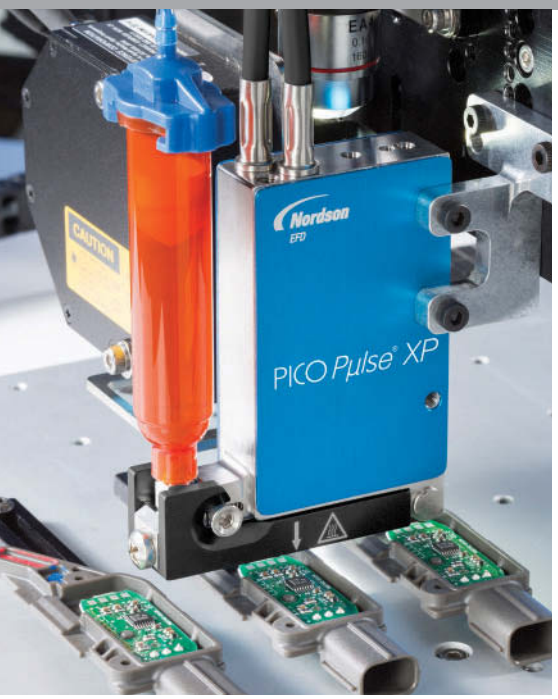
www.nordsonefd.com/Pulse

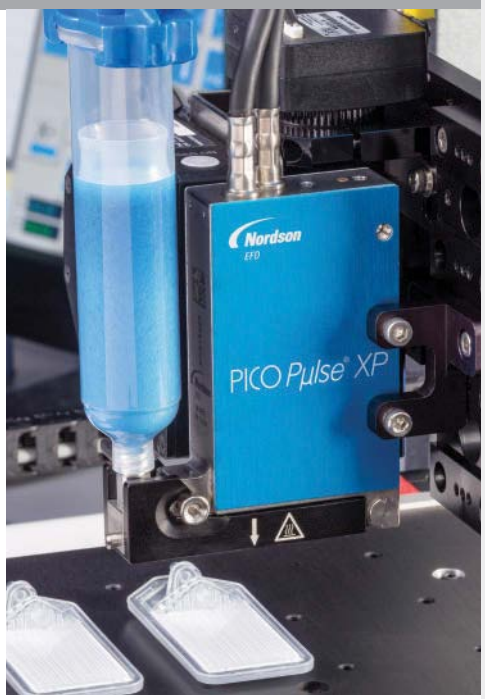
Specifications

Size:	22.0w x 120.0h x 75.0l mm (0.87w x 4.72h x 2.92l")
Weight:	With cable: 524.0 g (18.5 oz) Without cable: 362.0 g (12.8 oz)
Maximum fluid pressure:	35.0 bar (500 psi)
Fluid inlet:	M5
Mounting:	M4 x 0.7

Fluid body:	303 stainless steel or PEEK*
Ball-and-seat:	Ceramic
Heater body:	Aluminum
Approvals:	CE, UKCA, WEEE, TUV
Warranty:	1 year, limited

All stainless steel parts are passivated.
* Polyetheretherketone





PICO *Pµlse* XP Jet Valve

7364876 PICO *Pulse* XP Jet Valve HD
For greater dispensing repeatability and ability to fine tune jetting performance.

PICO *Pµlse* XP provides the same capabilities as the standard PICO *Pµlse* jet valve. In addition, it controls for the slightest variation in fluid body tolerances to maintain optimal jetting results, even after maintenance.

Sustained stroke target seeking allows the system to produce a stable deposit weight, even when environmental conditions change.

Features and Benefits

- XP self-regulating calibration
- Improve valve-to-valve dispensing repeatability and repeatability after maintenance
- Maintain dispensing repeatability regardless of environmental conditions
- System self-adjusts to minimize production downtime needed to recalibrate the jetting system

For use with

- Adhesives & UV-cure Adhesives
- Conductive Epoxies
- Greases & Oils
- Hydrous Solutions
- Liquid Polymers
- Organic Solvents
- Underfills

www.nordsonefd.com/PulseXP

Specifications

Size:	22.0w x 120.0H x 75.0L mm (0.87w x 4.72H x 2.92L")
Weight:	With cable: 524.0 g (18.5 oz) Without cable: 362.0 g (12.8 oz)
Maximum fluid pressure:	35.0 bar (500 psi)
Fluid inlet:	M5
Mounting:	M4 x 0.7

Fluid body:	303 stainless steel or PEEK*
Ball-and-seat:	Ceramic
Heater body:	Aluminum
Approvals:	CE, UKCA, WEEE, TUV
Warranty:	1 year, limited

All stainless steel parts are passivated.
* Polyetheretherketone

PICO *Pulse* Contact Valve

7362059 PICO *Pulse* Contact Dispense Valve
For contact dispensing applications with cycle rates up to 1000Hz.

Apply precise micro-deposits and control surge when dispensing lines and stripes with the PICO *Pulse* contact dispense valve. Unique tip adapter assemblies allow use of a variety of dispensing tip types such as Optimum general purpose and specialty tips and DL Technology precision tips.

Features and Benefits

- Highly precise, repeatable, and faster contact dispensing
- Capability for high speed actuation up to 1000Hz* continuous
- Ideal for critical line dispensing and repeatable deposits as small as 0.5 nL
- Apply extremely small dots and well-defined lines with precise control of the beginning and end points
- Optional PEEK wetted parts resist curing from reactive adhesives

* With approved conditional settings.

For use with

- Adhesives
- Conductive Epoxies
- Food Colors
- Greases
- Underfills
- UV-cure Adhesives

Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Size:	22.0w x 120.0$_H$ x 75.0$_L$ mm (0.87w x 4.72$_H$ x 2.92$_L$")
Weight:	With tip adapter / with cable: 538.0 g (19.0 oz) With tip adapter / without cable: 376.0 g (13.3 oz) Without tip adapter / with cable: 524.0 g (18.5 oz) Without tip adapter / without cable: 362.0 g (12.8 oz)
Maximum fluid pressure:	35.0 bar (500 psi)
Fluid inlet:	M5
Mounting:	M4 x 0.7

Fluid body:	303 stainless steel or PEEK*
Ball-and-seat:	Ceramic
Heater body:	Aluminum
Tip adapter kits:	303 stainless steel
Approvals:	CE, UKCA, WEEE, TUV
Warranty:	1 year, limited

All stainless steel parts are passivated.
* Polyetheretherketone

PICO PULSE FLUID BODY ASSEMBLIES

Nordson EFD offers a wide range of fluid bodies and cartridges that come together as matched sets to deliver the precise performance and repeatability needed to meet specific application requirements.

Fluid body assemblies are available with flat or extended nozzles in seat orifice sizes ranging from 50–600 microns with a choice of Type D and Type E geometries.

- Type "D" seat: Standard version is suitable for most fluids and can result in less splashing of the deposit for low- to medium-viscosity fluids.
- Type "E" seat: Recommended for highly viscous/stringing type fluids, it generates more kinetic energy during jetting for better release off nozzle plate and less "tailing."

Consult EFD's Technical Service team for the best recommendation on Fluid Body Assembly/Seat Geometry for your application.

Fluid Body	Flat Nozzle Part #	PEEK Flat Nozzle Part #	P7 Extended Nozzle Part #*	P30 Extended Nozzle Part #*	Description	Orifice	Geometry	Ball Size
 Flat Nozzle	7362574	7363321	7362703	n/a	Fluid body assembly	50 µm	E	3.0S
	7362575	7363322	7362704	n/a	Fluid body assembly	100 µm	D	3.0S
	7362576	–	7362705	n/a	Fluid body assembly	200 µm	D	3.0S
 PEEK Flat Nozzle	7362577	7363324	7362706	7363238	Fluid body assembly	50 µm	E	5.0S
	7362578	7363325	7362707	7363239	Fluid body assembly	100 µm	E	5.0S
	7362579	7363326	7362708	7363240	Fluid body assembly	150 µm	E	5.0S
 P7 Extended Nozzle	7362580	7363327	7362709	7363241	Fluid body assembly	300 µm	E	5.0S
	7362581	7363328	7362710	7363242	Fluid body assembly	100 µm	D	5.0S
	7362582	7363329	7362711	7363243	Fluid body assembly	150 µm	D	5.0S
	7362583	–	7362712	7363244	Fluid body assembly	200 µm	D	5.0S
 P30 Extended Nozzle	7362584	7363331	7362713	7363245	Fluid body assembly	300 µm	D	5.0S
	7362585	7363332	7362714	7363246	Fluid body assembly	400 µm	D	5.0S
	7362586	7363333	7362715	7363247	Fluid body assembly	600 µm	D	5.0S

*Extended nozzles for use with *Pµlse* non-contact jet valves only

PICO PULSE CONTACT VALVE TIP ADAPTER KITS*

Part	Part #	Description
	7362028	Luer lock tip adapter kit for EFD General Purpose dispense tips
	7362030	DL Technology tip adapter kit
	7361969	Specialty plate adapter kit for legacy accessories

*Tip adapter kits for use with *Pµlse* contact jet valves only

PICO PULSE FLUID INLET FITTINGS

Part	Part #	Description
	7362606	Fitting: M5 x female Luer lock, straight, stainless steel (includes Viton O-ring) 7361303: O-rings: 5 x 1 mm, Viton, 10 pc 7361681: O-rings: 5 x 1 mm, FFKM, 3 pc
	7363340	Fitting: M5 x female luer lock, straight, PEEK (includes FFKM O-ring) 7361303: O-rings: 5 x 1 mm, Viton, 10 pc 7361681: O-rings: 5 x 1 mm, FFKM, 3 pc
	7020669	Fitting: M5 x 3/32" ID barb, stainless steel
	7020671	Fitting: M5 x 1/8" ID barb, stainless steel
	7020673	Fitting: M5 x 1/8" ID barb, stainless steel, elbow
	7361498	Fitting: M5 x 35 mm male-female extension, stainless steel

PICO PULSE EXTENSION CABLES

Extension cable sets include a power cable and a communication cable for connection to the PICO *Toμch* Controller. Includes one each for power and communication.

Cable	Part #	Description
	7362085	0.6 m (2.0 ft) valve extension cable set
	7361298	2 m (6.6 ft) valve extension cable set
	7361299	6 m (19.7 ft) valve extension cable set
	7361300	9 m (29.5 ft) valve extension cable set

PICO PULSE XP EXTENSION CABLES

Extension cable sets include a power cable and a communication cable for connection to the PICO XP Controller. Includes one each for power and communication.

Cable	Part #	Description
	7365311	2 m (6.6 ft) valve extension cable set, XP
	7365312	6 m (19.7 ft) valve extension cable set, XP
	7365313	9 m (29.5 ft) valve extension cable set, XP
	7365314	12 m (39.4 ft) valve extension cable set, XP

ACCESSORIES

Part	Part #	Description
	Varies	HP High-Pressure Dispensing Tool. Used to jet very thick assembly fluids such as RTV silicones, epoxies, and medical-grade adhesives
	7361770	HP3cc Adapter Kit for use with PICO *Pμlse*
	7361771	HP5cc Adapter Kit for use with PICO *Pμlse*
	7361772	HP10cc Adapter Kit for use with PICO *Pμlse*
	7362459	HP Adapter Kit for use with PICO *Pμlse*, straight fitting
	7362543	HP Adapter Kit for use with PICO *Pμlse*, 90º elbow
	7361630	Latch release tool. Opens the piezo actuator heater body; useful for installations with limited access to the valve
	7361295	PICO *Pμlse* Valve Cleaning Kit. Includes brushes, swabs, mini-reamers, and magnifying loupe

PICO *Touch* Controller

7361217 PICO *Touch* Controller
For use with a PICO Pµlse valve only, the controller system includes a USB cable, back shell, and connector. Order power cord separately.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

The *Touch* controller uses a touchscreen and visual interface to greatly simplify setup and operation, while allowing precise adjustment of parameters such as open and close times. Easily integrate unprecedented control, precision, and performance into any dispensing application.

Features and Benefits

- Intuitive, easy-to-use touchscreen interface for precise control of PICO *Pulse* valve
- 480 x 272 resolution for sharper screen visibility
- More exact adjustment of valve parameters and performance
- Fine-tune dispensing performance by setting ramp open and close parameters and stroke control from the unique Wave Profile screen
- Flexibility to control the dispense of a wide range of fluids and viscosities
- Programmable lockout to prevent unintended changes to settings

"Nordson EFD's wide variety of products, and the numerous applications they can be used for, is impressive. It makes it easy to select the right products for the applications we're working on."

– Nye Lubricants

Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Cabinet size:	14.2W x 13.3H x 16.8D cm (28 Hp x 3U) (5.59W x 5.25H x 6.61D")
Weight:	2.6 kg (5.5 lb)
Time range:	100 µs to 9.9999 s
Input AC (to power supply):	100–240 VAC ±10%, 50/60 Hz, 2 A
Output DC (from power supply):	24 VDC, 6.25 A

Heater output voltage:	24 VDC, 30 W maximum
Feedback circuit:	0–24 VDC
Cycle initiate:	15–24 VDC
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited

PICO *Touch* XP Controller

7364877 PICO *Touch* XP Controller
For use with a PICO Pulse XP valve only, the controller system includes a USB cable, back shell, and connector. Order power cord separately.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

The PICO *Touch* XP controller provides the same capabilities as the standard PICO *Touch* controller with a few important differences.

It allows users to program stroke in microns for the finest parameter adjustments possible.

Program the most exact, repeatable fluid deposits, regardless of external factors that can affect deposit definition and repeatability.

Features and Benefits

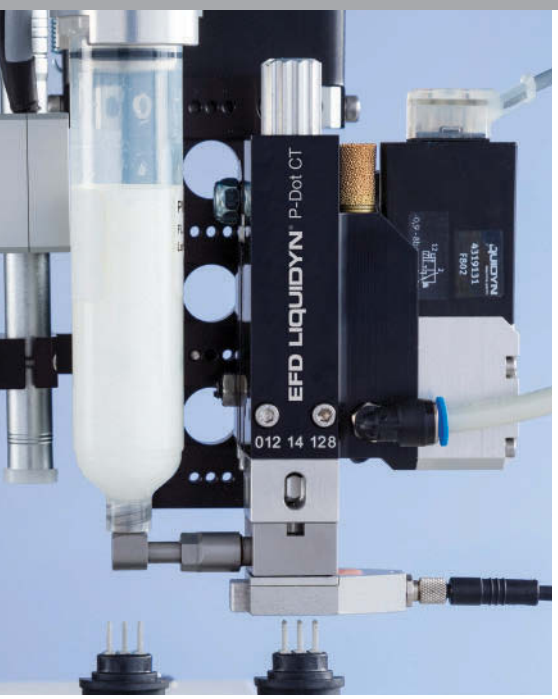
- Intuitive, easy-to-use touchscreen interface for precise control of PICO *Pulse* XP jet valve
- Micron (µm) level stroke adjustment
- Fine-tune jetting performance for a wide range of applications

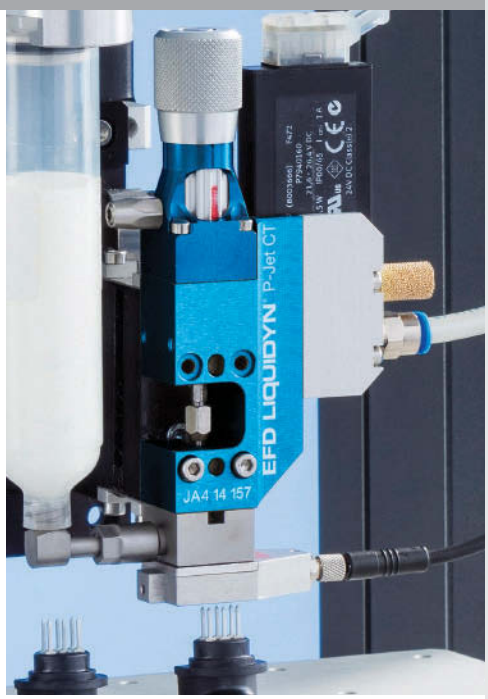
www.nordsonefd.com/PulseXP

Specifications

Cabinet size:	14.2W x 13.3H x 16.8D cm (28 Hp x 3U) (5.59W x 5.25H x 6.61D")
Weight:	2.6 kg (5.5 lb)
Time range:	100 µs to 9.9999 s
Input AC (to power supply):	100–240 VAC ±10%, 50/60 Hz, 2 A
Output DC (from power supply):	24 VDC, 6.25 A

Heater output voltage:	24 VDC, 30 W maximum
Feedback circuit:	0–24 VDC
Cycle initiate:	15–24 VDC
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited





Liquidyn P-Jet Series and P-Dot Series

7825004 Liquidyn P-Jet Actuator
Suitable for low- to medium-viscosity fluids with cycle rates of up to 280Hz.

7825002 Liquidyn P-Dot Actuator
Suitable for medium- to high-viscosity fluids with cycle rates of up to 150Hz.

7825932 Liquidyn P-Jet AN Valve
Complete valve preconfigured with metal-free wetted parts; suitable for anaerobics with cycle rates of up to 280Hz.

The Liquidyn® P-Jet and P-Dot pneumatic jet valves deliver precise, consistent non-contact dispensing of low- to high-viscosity fluids with micro-deposits starting at 3 nL. Both feature easily exchangeable dispensing nozzles, tappets, and fluid inlet fittings to meet a wide range of application requirements. Rigorously tested to withstand highly-industrial environments, the Liquidyn P-Jet and P-Dot also feature a low cost of ownership.

Features and Benefits

- Highly repeatable and accurate non-contact jet dispensing
- Micro-deposit dispensing at frequencies up to 280Hz (P-Jet)
- Separate wetted parts allow for simplified service and maintenance
- Modular design makes it easy to customize for different applications

For use with

- Anaerobics
- Epoxies
- Fluxes
- Glues
- Greases
- Silicones
- Sealing Lacquers
- UV-cure Adhesives

www.nordsonefd.com/PJetCT

Download CAD Models:
www.nordsonefd.com/CAD

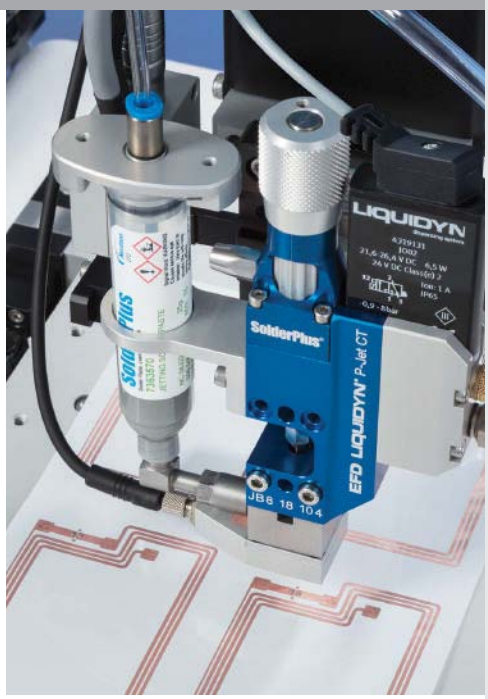
Specifications

Size:	P-Dot: 38.6W x 126.7H x 61.0L mm (1.52W x 4.99H x 2.40L") P-Jet: 20.0W x 138.5H x 78.5L mm (0.79W x 5.4"H x 3.09L")
Weight:	270.0 g (9.5 oz)
Maximum fluid pressure:	100 bar (1450 psi)
Fluid inlet:	M8 x 1, flat sealing
Mounting:	M3 x 25
Maximum operating frequency:	P-Dot: 150Hz P-Jet: 280Hz

Pulse time:	Starting at 2 ms (P-Jet); 2 ms (P-Dot)
Input air pressure:	3.0–8.0 bar (44–116 psi)
Fluid body:	303 stainless steel or PEEK (P-Jet only)
Heater body:	Aluminum
Approvals:	CE*, UKCA, TÜV
Warranty:	1 year, limited

All stainless steel parts are passivated.

*This valve meets the EN 61326-1:2013, FCC Part 15 Subpart B, and ICES-003 Issue 6 product family standard for immunity and emissions when connected to a Nordson EFD Liquidyn controller. Usage with any other controller does not guarantee electromagnetic compatibility (EMC) performance.



Liquidyn P-Jet SolderPlus

7825923 Liquidyn P-Jet SolderPlus Actuator
Suitable for use with a wide variety of EFD SolderPlus pastes with cycle rates of up to 100Hz.

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

The Liquidyn P-Jet SolderPlus is a high performance jet valve system designed for the non-contact micro-dispensing of Nordson EFD SolderPlus solder paste and filled products. EFD's pre-qualified SolderPlus solder paste formulations save time and streamline implementation by delivering a complete solder paste jetting solution. Specialized ISO-certified SolderPlus solder paste formulations come in a wide variety of leaded and lead-free alloys.

Features and Benefits

- Suitable for use with a wide variety of EFD SolderPlus pastes
- Volumes starting at 3 nL with deposits as small as 750 µm diameter
- Dispensing frequencies as high as 100Hz
- Pre-qualified SolderPlus solder paste formulations save time and streamline implantation
- Non-contact jet dispensing provides extremely repeatable, accurate fluid deposits

For use with

- EFD SolderPlus Solder Paste
- Other Filled Materials

www.nordsonefd.com/PJetSolderPlus

Specifications

Size:	20.0W x 138.5H x 78.5L mm (0.79W x 5.45H x 3.09L")
Weight:	270.0 g (9.5 oz)
Maximum fluid pressure:	100 bar (1450 psi)
Fluid inlet:	M8 x 1, flat sealing
Mounting:	M3 x 25
Maximum operating frequency:	100Hz

Pulse time:	Starting at 2 ms
Input air pressure:	3.0–8.0 bar (44–116 psi)
Fluid body:	303 stainless steel
Heater body:	Aluminum
Approvals:	CE*, UKCA, TÜV
Warranty:	1 year, limited

All stainless steel parts are passivated.

*This valve meets the EN 61326-1:2013, FCC Part 15 Subpart B, and ICES-003 Issue 6 product family standard for immunity and emissions when connected to a Nordson EFD Liquidyn controller. Usage with any other controller does not guarantee electromagnetic compatibility (EMC) performance.

LIQUIDYN JET VALVE COMPONENTS

The pneumatic jet valves can be uniquely configured to achieve the best dispensing result for your material and application. A Nordson EFD application specialist will help select the best valve system components for optimal jetting performance.

Part	Part #	Description	P-Dot	P-Jet	P-Jet SolderPlus
	7825024	Tappet, P-Jet, 40L x 2.0D mm, steel	—	✓	—
	7825028	Tappet, P-Jet, 40L x 2.0D mm, ceramic	—	✓	—
	7825033	Tappet, P-Dot , 27L x 2.0D mm, steel	✓	—	—
	7825034	Tappet nut, P-Dot	✓	—	—
	7825189	NBR O-ring (gasket)	✓	✓	✓
	7825188	EPDM O-ring (gasket)	✓	✓	✓
	7825190	Viton O-ring (gasket)	✓	✓	✓
	7825037	Steel fluid body	✓	✓	✓
	7825038	Plastic fluid body	—	✓	—
	7825008	Drainage block	✓	—	—
	7825182	2.5 m (8.2 ft) M8 valve cable	✓	✓	✓
	7825011	Safety plate	✓	—	—

LIQUIDYN JET VALVE NOZZLES

Other selections are available. Please consult EFD's Technical Service team for available components.

Part	Part #	Description	P-Dot	P-Jet	P-Jet SolderPlus
	7825063	Steel flat nozzle, 150 µm	✓	✓	—
	7825075	Steel needle nozzle, 150 µm	✓	✓	—
	7825919	Steel needle nozzle, 250 µm	—	✓	✓
	7825094	Plastic needle nozzle with steel tip, 150 µm	—	✓	—
	7825100	Plastic needle nozzle with PTFE tip, 200 µm	—	✓	—
	7825042	Hexagon retaining nut	✓	✓	✓
	7825044	Knurled retaining nut for plastic nozzles with tip	—	✓	—

LIQUIDYN JET VALVE FLUID FITTINGS

Fitting	Part #	Description	P-Dot	P-Jet	P-Jet SolderPlus
	7825149	Kit, standard nozzle heater	✓	✓	✓
	7825120	Steel luer lock adapter for syringe barrels	✓	✓	✓
	7825121	Plastic luer lock adapter for syringe barrels	—	✓	—
	7825137	Steel tube connector for 4 mm OD tubing	✓	✓	—
	7825136	Plastic tube connector for 3.2 mm OD tubing	—	✓	—

Key: ✓ Applicable — Not applicable

Liquidyn V200 Controller

7825168 Liquidyn V200 Controller
The Liquidyn V200 controller allows operators to quickly find the best settings for optimal dispensing results. Order power cord separately.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

The Liquidyn V200 controller provides safe, easy operation of the Liquidyn P-Jet, P-Dot, and P-Jet SolderPlus jet valves and greater control over dispensing outcomes. By providing control of dispensing parameters, the Liquidyn V200 makes it possible to optimize valve performance. Two precision pressure regulators and a digital display make it easy to adjust parameters to get the perfect deposit.

Features and Benefits

- Programmable dispensing parameters — up to four programs
- Continuous shot operation up to 150Hz (P-Dot), 280Hz (P-Jet), and 100Hz (P-Jet SolderPlus)
- Continuous display of actual pressure and temperature readings
- Setpoint Counter sets the number of shots and shows the actual number of shots deposited

"The benefits of working with EFD include product support, product reliability, and a wide range of products to handle almost anything we encounter."
– Micro Instrument Corp.

Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Cabinet size:	45.0W x 12.5H x 25.0D cm (17.72W x 4.92H x 9.84D")
Weight:	5.5 kg (12.1 lb)
Cycle rate:	Up to 280Hz
Time range:	2–9,999 ms
Electrical power input:	24 VDC, 2.5 Amp minimum
Electrical input connector:	Lumberg KFV70

External power adapter:	AC/DC power supply and power cord: 100–240 VAC, 50/60Hz, 1.4 Amp input; 24 VDC, 2.5 Amp, 60 W maximum output
Feedback circuit:	0 VDC (logical low), 24 VDC (logical high)
Input air pressure:	6.2–10.3 bar (90–150 psi)
Temperature control:	0–90° C (32–194° F)
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited

Precision Dispense Valve Systems

Dispense Valves / Controllers

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.

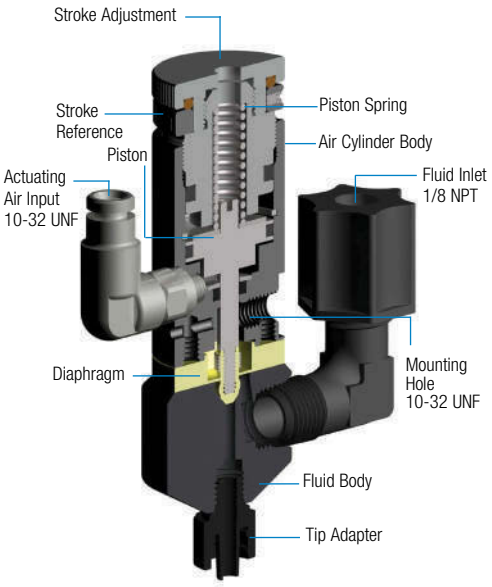
EFD offers a wide range of valves for dispensing almost any fluid, from thin solvents to thick sealants and braze pastes — in accurate, repeatable amounts.

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

Nordson EFD



752V Series Diaphragm Valve

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.

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.

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.

See Valve Controllers for system setup

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

For use with

- Activators
- Anaerobics
- Cyanoacrylates
- Fluxes
- Solvents
- UV-cure & Light-cure Adhesives

"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

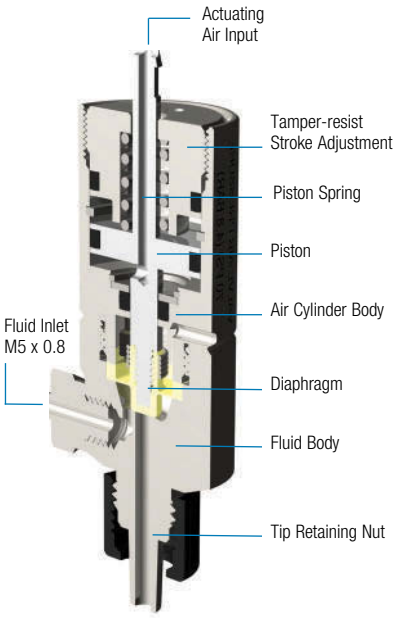
Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Size:	752V-UHSS / 752V-SS: 80.7L x 26.9DIA mm (3.18L x 1.06DIA") 752V-DVD: 76.3L x 26.9DIA mm (3.00L x 1.06DIA")
Weight:	752V-UHSS: 173.6 g (6.1 oz) 752V-SS: 181.4 g (6.4 oz) 752V-DVD: 172.9 g (6.1 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	4.8 bar (70 psi)
Fluid inlet:	1/8 NPT female
Fluid outlet:	1/4-28 UNF
Mounting:	(1) 10-32 UNF tapped hole
Cycle rate:	Exceeds 500 per minute

Air cylinder body:	303 stainless steel 752V-DVD: Hard-coated anodized aluminum
Fluid body:	752V-UHSS: UHMW* polyethylene, FDA approved Options: Acetal, 303 stainless steel, PTFE
Piston:	303 stainless steel
Diaphragm:	FDA approved UHMW polyethylene or PTFE
Tip adapter:	Polypropylene
Tip retaining nut:	752V-DVD: Aluminum
Maximum operating temperature:	43° C (110° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.
*Ultra High Molecular Weight polyethylene



702 Series
Mini-diaphragm Valve

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.

See Valve Controllers for system setup

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

For use with

- Dyes
- Resins
- Solvents
- UV-cure Adhesives
- UV-cure Coatings
- UV-cure Lacquers

www.nordsonefd.com/702Series

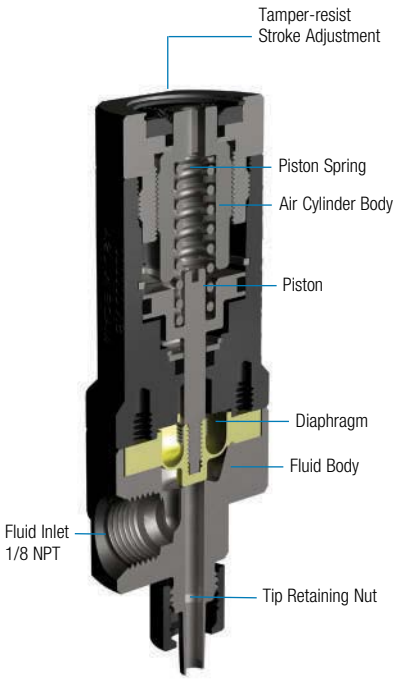
Order Valve Replacement Parts:
www.nordsonefd.com/ValveKits

Specifications

Size:	63.5L x 19.1DIA mm (2.50L x 0.75DIA")
Weight (less fittings):	49.3 g (1.7 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	4.8 bar (70 psi)
Fluid inlet:	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
Tip retaining nut:	Aluminum
Maximum operating temperature:	43° C (110° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.
*Ultra High Molecular Weight polyethylene



752HF Series High Flow Diaphragm Valve

7014139 752HF-A Valve
Air cylinder body assembly and tamper-resist stroke reference knob are hard-coated anodized aluminum. Acetal copolymer fluid body and UHMW diaphragm. Includes fluid inlet fittings #7021499 and #7007038.

7014315 752HF-SS Valve
Same as 752HF-A except fluid body is passivated 303 stainless steel.

See Valve Controllers for system setup

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

For use with

- Resins
- UV-cure Adhesives
- UV-cure Coatings

"We never expected these valves would work this great and be this reliable! Over 50 million cycles without maintenance!"
– Capitol Records

www.nordsonefd.com/752HFSeries

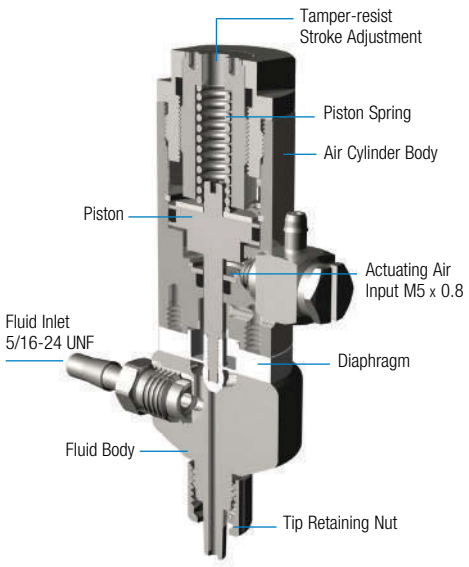
Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Size:	77.3L x 28.6DIA mm (3.04L x 1.13DIA")
Weight (less fittings):	752HF-A: 81.0 g (2.8 oz) 752HF-SS: 123.0 g (4.3 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	4.8 bar (70 psi)
Fluid inlet:	1/8-27 NPT
Mounting:	(1) M5 x 0.8
Cycle rate:	Exceeds 500 per minute
Air cylinder body:	Hard-coated anodized aluminum

Fluid body:	752HF-A: Acetal copolymer 752HF-SS: 303 stainless steel
Piston:	303 stainless steel
Diaphragm:	FDA approved UHMW* polyethylene
Tip retaining nut:	Aluminum
Maximum operating temperature:	43° C (110° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.
*Ultra High Molecular Weight polyethylene



754V Series Aseptic Valve

7021514 754V-SS Valve
Wetted components are made of 316L stainless steel and PTFE, to conform to biopharmaceutical regulations. Internal threads have been removed to provide a smooth, easily cleaned fluid flow path, free of entrapped areas. Fluid body is electro-polished to increase corrosion resistance.

754V valve includes 1.5 m (5 ft) input air hose with male quick-connect, barbed fluid inlet fitting, polypropylene tip adapter, and dispensing tip kit.

See Valve Controllers for system setup

For Aseptic Spray Valves, see Spray Valves section.

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 $1x10^8$
- Positive shutoff, no seals

For use with

- Food Processing
- Optical Monomers
- Pill Coating
- Saline Solutions
- Solvents
- Vial Filling

www.nordsonefd.com/754VSeries

Download CAD Models:
www.nordsonefd.com/CAD

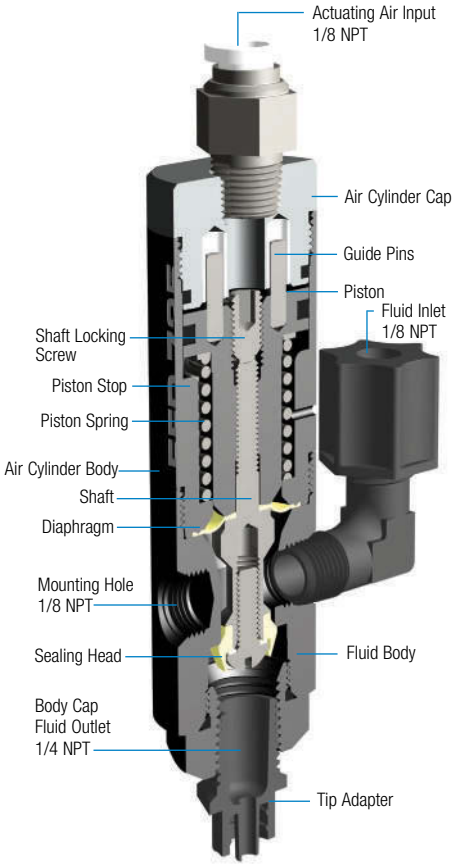
Specifications

Size:	77.5L x 26.9DIA mm (3.05L x 1.06DIA")
Weight:	193.3 g (6.8 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	4.8 bar (70 psi)
Fluid inlet:	5/16-24 UNF
Fluid outlet:	Male luer lock
Mounting:	None
Cycle rate:	Exceeds 500 per minute

Air cylinder body:	316L stainless steel
Fluid body:	316L stainless steel
Piston:	316L stainless steel
Diaphragm:	PTFE
Tip retaining nut:	316L stainless steel
Maximum operating temperature:	43° C (110° F) Autoclaving: 260° C (500° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.

Piston Valves



725D Series Piston Valve

7021014 725DA-SS Valve
Adjustable piston stroke provides fine-tuning of fluid flow rate and pullback volume. UHMW diaphragm and sealing head. Fluid body and body cap are passivated 303 stainless steel. Includes fluid inlet fittings #7021499 and #7007038 and dispensing tip kit.

7021009 725D-SS Valve
Fixed stroke travel. Fluid body and body cap are passivated 303 stainless steel. UHMW diaphragm and sealing head. Includes fluid inlet fittings #7021499 and #7007038.

See Valve Controllers for system setup

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

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

www.nordsonefd.com/725DSeries

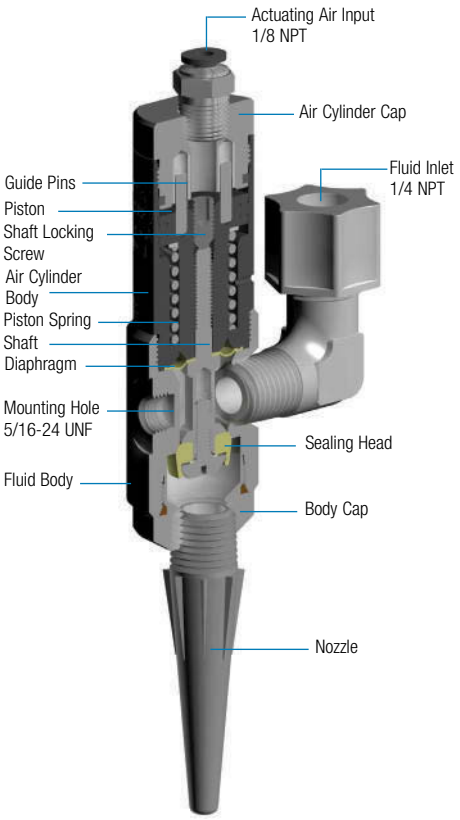
Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Size:	725DA-SS: 152.4L x 29.5DIA mm (6.00L x 1.16DIA") 725D-SS: 127.0L x 28.4DIA mm (5.00L x 1.12DIA")
Weight:	725DA-SS: 326.0 g (11.5 oz) 725D-SS: 279.0 g (9.85 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	7.0 bar (100 psi)
Fluid inlet:	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:	Hard-coated anodized aluminum
Fluid body:	303 stainless steel
Piston:	Hard-coated anodized aluminum
Diaphragm:	UHMW* polymer, FDA-approved
Maximum operating temperature:	43° C (110° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.
*Ultra High Molecular Weight polyethylene



725HF Series
High Flow Piston Valve

7021020 725HF-SS Valve
Hard-coat anodized aluminum air cylinder body assembly with passivated 303 stainless steel fluid body and shaft. UHMW diaphragm and sealing head. Includes 1.5 m (5 ft) input air hose with male quick-connect, fluid inlet fitting #7021038, tip adapter, and two #7018554 disposable polyethylene nozzles.

See Valve Controllers for system setup

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

For use with

- Adhesives
- Cosmetics
- Creams
- Greases
- Lubricants
- Inks
- Sealants

www.nordsonefd.com/725HFSeries

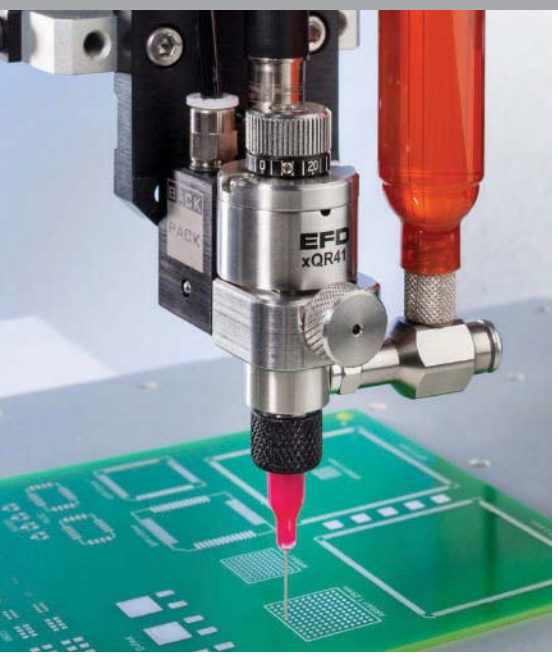
Order Valve Replacement Parts:
www.nordsonefd.com/ValveKits

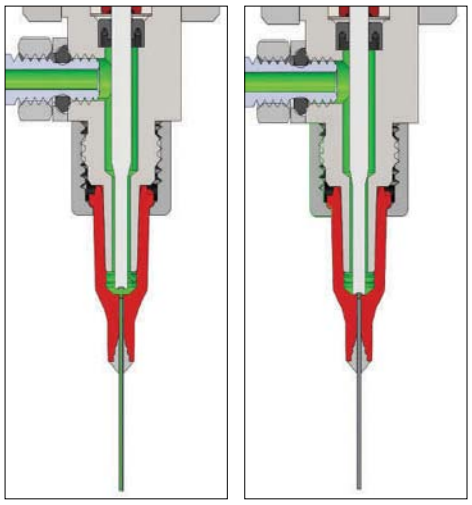
Specifications

Size:	725HF-SS: 108.7L x 31.2DIA mm (4.28L x 1.23DIA")
Weight:	725HF-SS: 309.0 g (10.9 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	7.0 bar (100 psi)
Fluid inlet:	1/4 NPT
Fluid outlet:	1/4 NPT
Mounting:	(1) 5/16 UNF or adjustable mounting block

Cycle rate:	Exceeds 400 per minute
Air cylinder body:	Hard-coated anodized aluminum
Fluid body:	303 stainless steel or acetal copolymer
Piston:	Hard-coated anodized aluminum
Diaphragm:	UHMW* polymer, FDA-approved
Maximum operating temperature:	43° C (110° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.
*Ultra High Molecular Weight polyethylene





Open Closed

xQR41 Series MicroDot Valve

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

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.

See Valve Controllers for system setup

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

For use with

- Anaerobics*
- Cyanoacrylates*
- Epoxies
- Fluxes
- Lubricants
- Primers
- Silicone Oils
- Solvents
- UV-cure & Light-cure Adhesives

* Conditional use with PEEK wetted parts

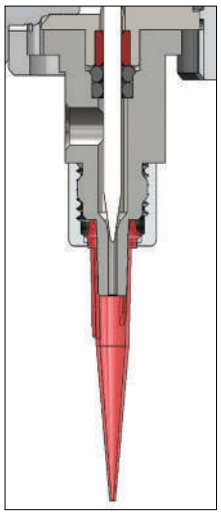
www.nordsonefd.com/xQR41Series

Specifications

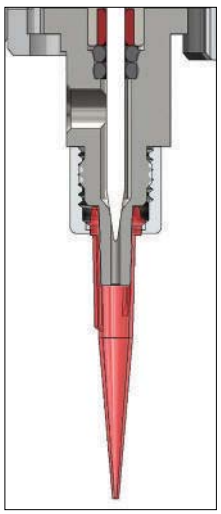
Size:	66.0L x 23.7DIA mm (2.60L x 0.93DIA")
Weight:	141.4 g (5.0 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	7.0 bar (100 psi)
Fluid inlet:	M5
Fluid outlet:	Luer taper with retaining nut
Mounting:	M4 (BackPack actuator or Mounting Block)
Cycle rate:	Exceeds 400 per minute
Air cylinder body:	303 stainless steel

Fluid body:	303 stainless steel or PEEK*
Piston:	303 stainless steel
Needle and nozzle:	303 stainless steel or PEEK
Tip retaining nut:	Hard-coated aluminum
SafetyLok collar:	Hard-coated anodized aluminum
Maximum operating temperature:	80° C (176° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.
* Polyetheretherketone



Open



Closed

xQR41V Series Needle Valve

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.

See Valve Controllers for system setup

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

For use with

- Accelerators
- Marking Inks
- Silicone Oils
- Solvents
- UV-cure & Light-cure Adhesives

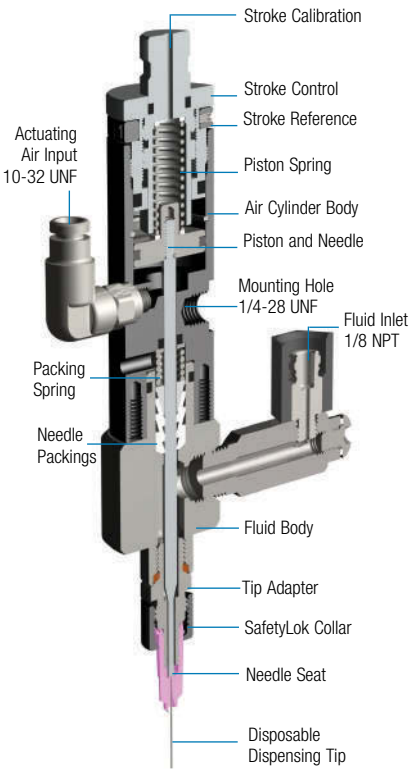
Order Valve Replacement Parts:
www.nordsonefd.com/ValveKits
Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Size:	64.0L x 23.7DIA mm (2.50L x 0.93DIA")
Weight:	115.0 g (4.1 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	7.0 bar (100 psi)
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 and nozzle:	303 stainless steel
Tip retaining nut:	Hard-coated aluminum
SafetyLok collar:	Hard-coated anodized aluminum
Maximum operating temperature:	80° C (176° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.
* Polyetheretherketone



741MD-SS Series MicroDot Valve

7021233 741MD-SS Valve
Fluid body is passivated 303 stainless steel. Air cylinder body assembly is hard-coat anodized aluminum. Includes fluid inlet fittings #7021499 and #7007038.

7015585 741MD-SS-BP Valve
Fluid body is passivated 303 stainless steel. Air cylinder body assembly is hard-coat anodized aluminum. Includes fluid inlet fittings and BackPack valve actuator.

See Valve Controllers for system setup

The 741MD-SS 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

For use with

- Epoxies
- Lubricants
- Marking Inks
- Solvents
- UV-cure & Light-cure Adhesives

www.nordsonefd.com/741MDSeries

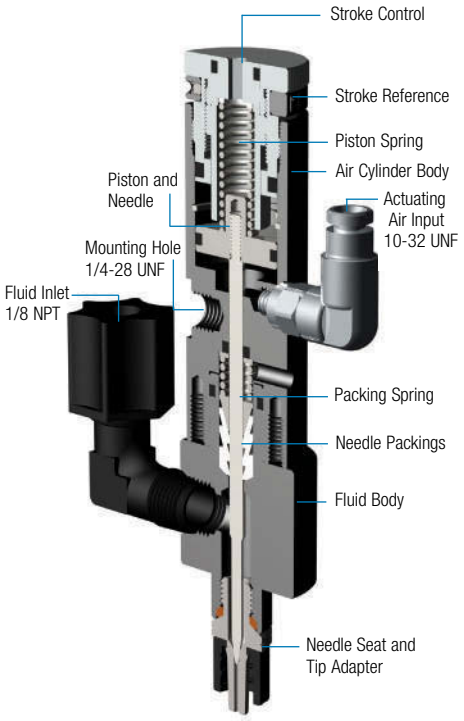
Order Valve Replacement Parts:
www.nordsonefd.com/ValveKits

Specifications

Size:	127.5L x 26.9DIA mm (5.02L x 1.06DIA")
Weight:	251.0 g (9.0 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	7.0 bar (100 psi)
Fluid inlet:	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:	Hard-coated anodized aluminum
Fluid body:	303 stainless steel
Piston:	303 stainless steel
Needle and nozzle:	303 stainless steel
Tip adapter:	303 stainless steel
SafetyLok collar:	Hard-coated anodized aluminum
Maximum operating temperature:	43° C (110° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.



741V Series Needle Valve

7007029 741V-SS Valve
Air cylinder and fluid body is passivated 303 stainless steel. Includes fluid inlet fittings #7021499 and #7007038.

7021239 741V-SS-TR Valve
Same as 741V-SS but tamper resistant.

7015584 741V-SS-BP Valve
Air cylinder and fluid body is passivated 303 stainless steel. Includes fluid inlet fittings and BackPack valve actuator.

See Valve Controllers for system setup

The 741V 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

For use with

- Accelerators
- Marking Inks
- Silicone Oils
- Solvents
- UV-cure Adhesives

"After we installed your valve system on our automatic assembly machines, the dripping – and the complaints – ended."
– A.T. Cross Company

www.nordsonefd.com/741VSeries

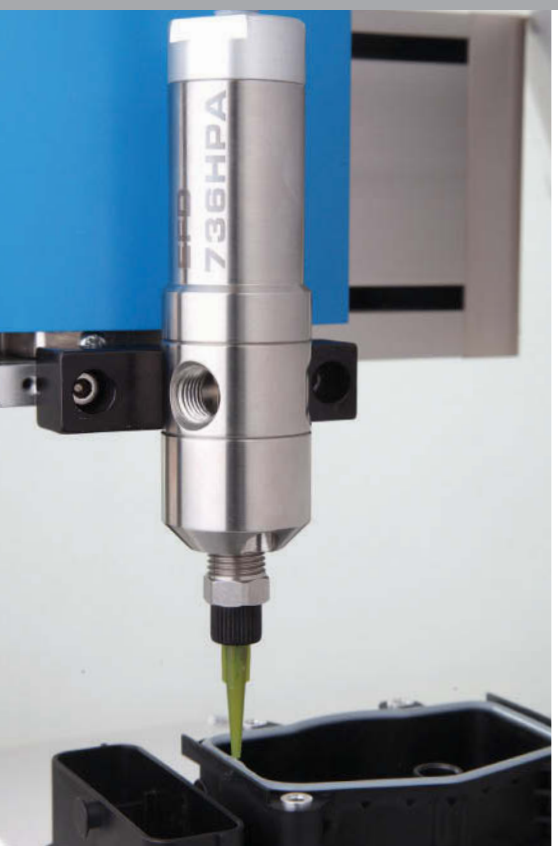
Download CAD Models:
www.nordsonefd.com/CAD

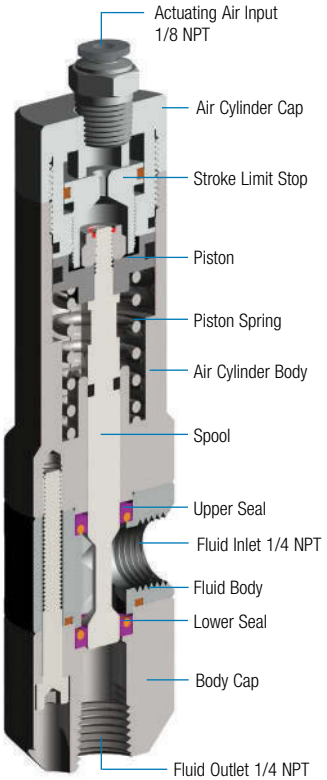
Specifications

Size:	114.6L x 26.9DIA mm (4.51L x 1.06DIA")
Weight:	317.5 g (11.2 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	20.7 bar (300 psi)
Fluid inlet:	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 and nozzle:	303 stainless steel
Tip adapter:	303 stainless steel
SafetyLok collar:	Nylon
Maximum operating temperature:	43° C (110° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.





736HPA-NV Series High Pressure Valve

7013449 736HPA-NV Valve
Chromium-plated spool
Fluid body and air cylinder body are passivated 303 stainless steel with a chromium-plated spool. The fluid inlet and outlet threads are 1/4 NPT female.

7028951 736HPA-NV Valve
Titanium nitride-coated spool
Fluid body and air cylinder body are passivated 303 stainless steel with a titanium nitride-coated spool. The fluid inlet and outlet threads are 1/4 NPT female.

High pressure fluid inlet fittings are not supplied by EFD. They are available from the pump supplier. Specify inlet size 1/4 NPT.

See Valve Controllers for system setup

The 736HPA stainless steel balanced spool valve applies uniform amounts of thick materials like greases and silicones at pressures up to 172 bar (2500 psi).

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

For use with

- Adhesives
- Greases
- Sealants
- Silicones

www.nordsonefd.com/736Series

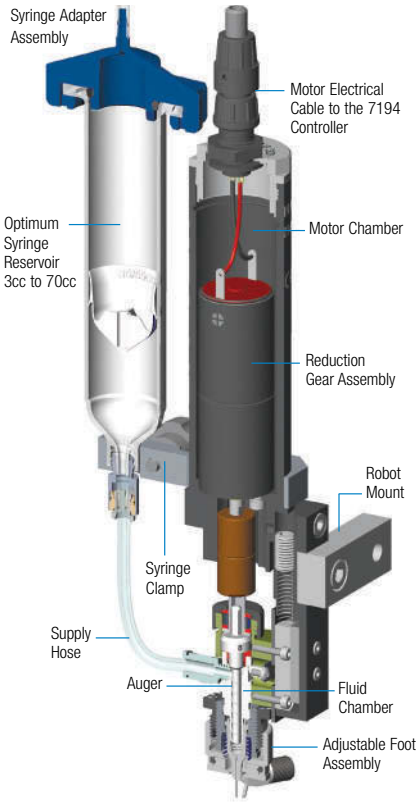
Order Valve Replacement Parts:
www.nordsonefd.com/ValveKits

Specifications

Size:	134.4L x 35.1DIA mm (5.29L x 1.38DIA")
Weight:	544.0 g (19.2 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	172 bar (2500 psi)
Fluid inlet:	1/4 NPT female
Fluid outlet:	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:	303 stainless steel
Piston:	Hard-coated anodized aluminum
Spool:	Hard-chrome coated stainless
Spool seals:	Polyester elastomer
Warranty:	1 year, limited

All stainless steel parts are passivated.



794 Series Auger Valve

Brushless Motor Style

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

Brush Motor Style

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

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

See 7194 Valve Controller for system setup

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

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

For use with

- Thermal Interface Materials
- Particle-filled Materials
- 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

www.nordsonefd.com/794Series

Specifications

Size:	237.5L x 31.8DIA mm (9.35L x 1.25DIA")
Weight:	544.0 g (19.2 oz)
Auger speed (dry):	250–500 RPM based on voltage input
Auger pitch:	8, 16
Input voltage:	12–24 VDC (<10% ripple)
Maximum acceleration:	2.0 g (0.07 oz)
Maximum continuous current:	FR – 240 mA FB – 670 mA (Time delay fuse recommended)

Maximum fluid pressure:	2.0 bar (30 psi)
Fluid inlet:	304 stainless steel, 10-32 UNF x 5/32" Optional push-in fitting: Polypropylene
Mounting:	10-32, low profile
Fluid body:	440C hardened stainless steel
Auger:	440C hardened stainless steel
Approvals:	China RoHS
Warranty:	1 year, limited

All stainless steel parts are passivated.

794-TC Series Auger Valve

Brush Motor Style

7363512 794-TC Valve 0.10 mm
High flow (double pitch), brush motor, 0.10 mm (0.004") gap – recommended for fluids with large particles < 40 µm.

7364566 794-TC Valve 0.15 mm
High flow (double pitch), brush motor, 0.15 mm (0.006") gap — recommended for fluids with large particles <40 µm.

Learn more about EFD thermal interface materials. See Thermal Compound for details.

The 794-TC Series auger valve system is designed to make precise, repeatable deposits and patterns of thermal interface materials (TIM) or other highly abrasive pastes. Its robust tungsten carbide (TC) auger screw and fluid body liner resist wear from highly abrasive pastes to ensure long valve life.

The 794-TC auger valve is available in several auger screw gap sizes to ensure best valve performance based on TIM particle size. The TC auger assembly can be easily replaced to change the gap size as needed.

Features and Benefits

- Fast, tool-free release of wetted parts
- Wear-resistant tungsten carbide wetted parts for higher production output
- Adjustable flow rate
- Adjustable auger speed
- Robust tungsten carbide auger screw and fluid body to ensure long valve life

For use with

- Thermal Interface Materials (TIM)
- Particle-filled Materials
- Solder Pastes
- Thermal Greases

www.nordsonefd.com/794-TCSeries

Order Valve Replacement Parts:
www.nordsonefd.com/ValveKits

Specifications

Size:	61.0L x 32.0DIA mm (2.4L x 1.25DIA")
Weight:	470.0 g (16.6 oz)
Auger speed (dry):	170–400 RPM based on voltage input
Auger pitch:	High flow (double pitch)
Input voltage:	10–24 VDC (<10% ripple)
Maximum acceleration:	2.0 g (0.07 oz)
Maximum continuous current:	240 mA (Time delay fuse recommended)
Maximum fluid pressure:	2.0 bar (30 psi)

Fluid inlet:	1/8" ID tubing supplied for connection
Mounting:	10-32, low profile
Luer lock tip adapter assembly:	303 stainless steel
Fluid inlet tube:	303 stainless steel
Fluid cartridge liner:	Tungsten carbide
Auger:	Tungsten carbide
Approvals:	China RoHS
Warranty:	1 year, limited

All stainless steel parts are passivated.

Radial Spinner Systems

The Radial Spinner System applies consistent amounts of adhesives, lubricants, and other production fluids inside cylindrical parts between 10.2 mm (0.4") and 127.0 mm (5.0") 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

For use with

- Anaerobics
- Cyanoacrylates
- Lubricants
- Silicone Gels
- Solvents

RADIAL SPINNER / DISC ASSEMBLIES	
Shaft length is 70 mm (2.75") x 3.18 mm (0.125") diameter	
Part #	Description
7021842	7880-9MM: 9 mm (0.354") radial spinner/disc
7021836	7880-12MM: 12 mm (0.473") radial spinner/disc
7021838	7880-15MM: 15 mm (0.590") radial spinner/disc
7021840	7880-19MM: 19 mm (0.745") radial spinner/disc
DISPENSING TIPS	
Part #	Description
7021846	18 gauge needle – 30 degree bend 20/box
7021844	Tip kit: Includes (2) each of 18, 21, and 23 gauge bent tips
7021448	Tip adapter: Rotating luer lock tip for 752V valve

Radial Spinner System

7021798 7860C-RS
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.

See Spray Valve Controllers for system setup

Note: Valves purchased separately. We recommend 752V Series Diaphragm Valves for use with the Radial Spinner System.

"In manufacturing, reliability is everything. That's what we get from EFD valves. If all our equipment worked as well…our jobs would be easier."

– Ford Motor Company

www.nordsonefd.com/RadialSpinner

ValveMate 9000 Valve Controller

7028693 ValveMate 9000 Controller
Increased functionality for increased results.
Order power cord separately.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

See next page for compatible valves

The ValveMate 9000 Controller supports two valve systems, one channel for each valve. Each channel is capable of driving a remote high-speed solenoid valve up to 500Hz. To further achieve greater precision and consistency, the controller incorporates a heating system and an electronic fluid reservoir pressure regulator for each channel.

The ValveMate 9000 can be programmed to automatically change the dispensing parameters over time. This allows the system to compensate for periodically changing conditions, such as viscosity changes as well as dispensing patterns of different sized deposits.

Features and Benefits

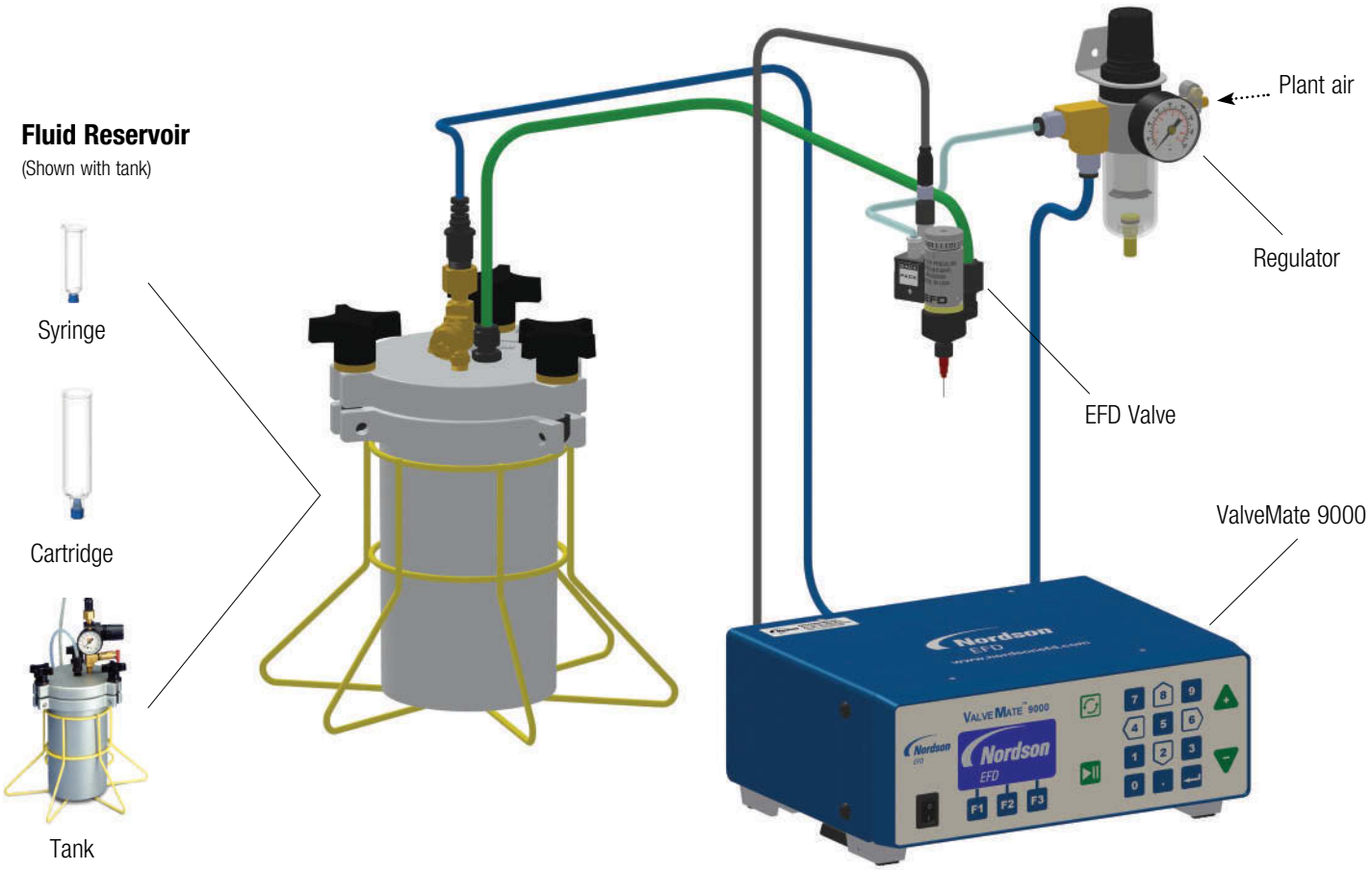
- Precise full-to-empty reservoir pressure control
- Setup parameters can be adjusted remotely by PLC
- Auto Increment mode that adjusts dispensing parameters after a certain number of shots or a specific elapsed time
- Accurate control of external system components such as low powered solenoids
- Auto Sequence mode that allows deposit patterns to be repeated automatically

Download CAD Models:
www.nordsonefd.com/CAD

Specifications

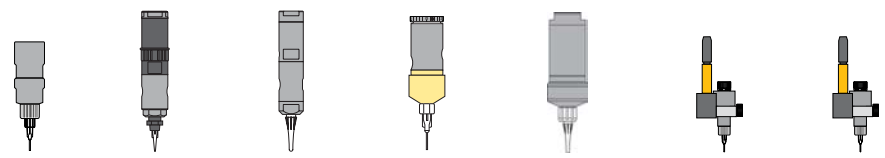
Cabinet size:	25.5W x 11.1H x 21.4D cm (10.04W x 4.36H x 8.43D")
Weight:	3.5 kg (7.6 lb)
Cycle rate:	Up to 500Hz
Time range:	0.0001–9.9999 s, 100 µs resolution
Internal AC-DC power supply:	AC input: 100–240 VAC (+/-10%), ~50/60Hz, 0.5 A DC output (internal): 24 VDC @ 1.7 A
Feedback circuits:	End of Cycle (EOC) 1-2 and Alarm Out (AO) Electronic Switch, 24 VDC, 100 mA maximum
Cycle initiate:	5–24 VDC signal or foot pedal
Input air pressure:	4.8–6.9 bar (70–100 psi)
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited

ValveMate 9000 Valve Controller – System Setup



Fluid
Actuating air
Constant air
Nozzle air
Electrical

For use with



702 **725** **736** **752** **754** **xQR41** **741**

Accessories

BackPack

Needle Nozzle
Cleaning Station

Automated dispensing stations run at maximum speed and efficiency when EFD dispense valves are operated by ValveMate controllers. The ValveMate 8000 Multi-Valve Controller provides the primary control for deposit size. The controller is designed to bring fluid dispensing control close to the dispense valve and provide numerous user-friendly features that simplify valve setup and operation.

Capable of operating up to (4) dispense valves independently or simultaneously, the ValveMate 8000 controller and control air solenoids offer state-of-the-art features and capability, maximizing automated assembly machine efficiency and convenience.

Features and Benefits

- 4 independent programmable actuation channels
- Maximum process control
- “On the fly” deposit adjustment
- Easily interfaced with a PLC
- Fast-response pneumatic solenoids

ValveMate 8000 Multi-Valve Controller

7022004 8000 Multi-Valve Controller
Includes controller, stand, panel mount bezel and spring clips, filter regulator, and air manifold assembly with pre-wired pressure sensor.

Order single or dual valve solenoid assemblies separately.
For each ValveMate 8000 ordered, select the appropriate solenoid assembly for the number of valves used. Each solenoid kit includes the pre-wired 6 pin connector and housing, 3.6 m (12 ft) cable cordset, input air hose, and push-in fittings.

7022246 Single
Single in-line solenoid for one valve operation.

7022247 Dual
Dual-solenoid block for two valve operation.

7022248 Tri
Tri-solenoid block for three valve operation.

7022249 Quad
Quad-solenoid block for four valve operation.

Order power cord separately.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

See next page for compatible valves

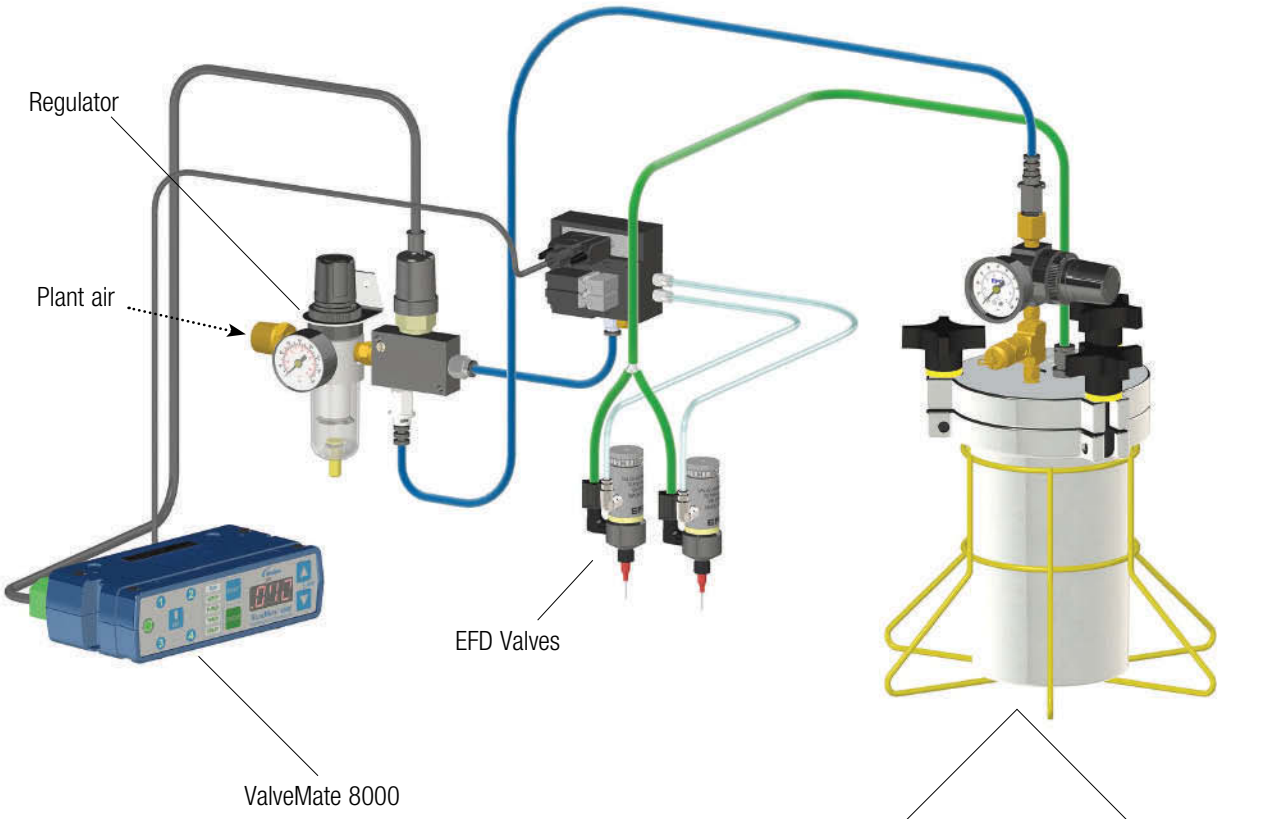
Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Cabinet size:	18.3W x 5.1H x 8.6D cm (7.20W x 2.00H x 3.38D")
Weight:	0.3 kg (0.6 lb)
Cycle rate:	Exceeds 600 per minute
Time range:	0.001–99.9 s
Input AC (to power supply):	100–240 VAC, 50/60Hz

Output DC (from power supply):	24 VDC, 1.25 Amp maximum
Feedback circuits:	5–24 VDC NC solid-state switch, 100 mA maximum
Cycle initiate:	5–24 VDC signal
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited

ValveMate 8000 Valve Controller – System Setup

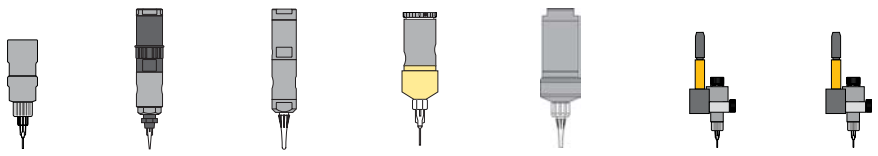


Fluid
Actuating air
Constant air
Nozzle air
Electrical

Fluid Reservoir
(Shown with tank)

Syringe Cartridge Tank

For use with



702 **725** **736** **752** **754** **xQR41** **741**

Accessories

BackPack

Needle Nozzle Cleaning Station

ValveMate 7100 Single Valve Controller

7015340 7100 Single Valve Controller
Includes controller, stand, panel mount bezel and spring clips, filter regulator, and air manifold assembly with pre-wired pressure sensor. Order power cord separately.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

See next page for compatible valves

The ValveMate 7100 Single Valve Controller puts push-button adjustment of valve open time in increments as small as 0.001 seconds, right at the dispensing station. The result is exceptional process control without time-consuming programming or mechanical adjustments that require the production line to be shut down.

The controller is designed for semi-automated or fully automated dispensing applications and features an internal control air solenoid.

Features and Benefits

- Maximum process control
- Intuitive, easy operator interface
- Cost-effective
- Simple to set up and operate
- Easily interfaced with a PLC

"We had a skilled technician spending 8 to 10 hours a week adjusting equipment. By putting a controller at each dispense valve station, we've reduced that time to almost zero."

– A.T. Cross Company

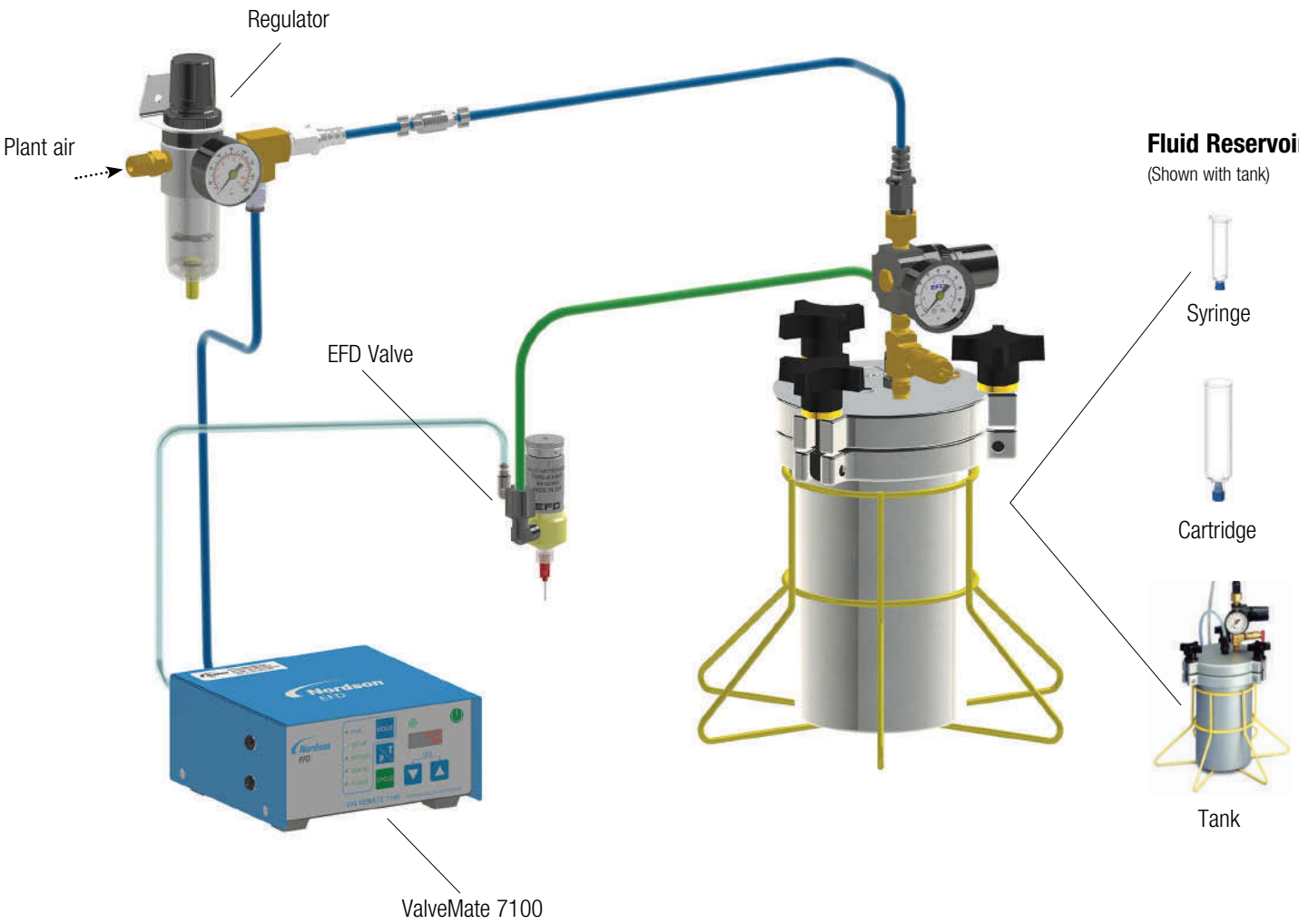
Download CAD Models:
www.nordsonefd.com/CAD

Specifications

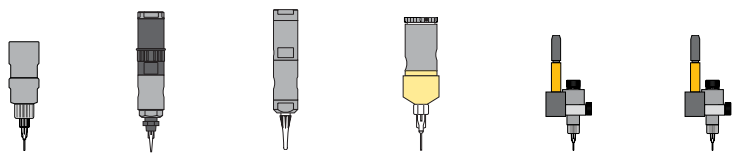
Cabinet size:	14.0W x 6.8H x 14.2D cm (5.51W x 2.68H x 5.59D")
Weight:	1.2 kg (2.9 lb)
Cycle rate:	Exceeds 600 per minute
Time range:	0.001–99.9 s
Electrical power input:	24 VDC (+/-5%), 0.63 Amp maximum
External power adapter:	100–240 VAC (+/-10%), ~50/60Hz input, 24 VDC (+/-5%), 0.63 Amp output, Switchcraft S761K locking DC plug or equivalent, wall mount, changeable AC plugs

Feedback circuits:	5–24 VDC NC solid-state switch, 100 mA maximum
Cycle initiate:	5–24 VDC signal, foot pedal, or contact closure initiate
Input air pressure:	4.8–6.9 bar (70–100 psi)
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited

ValveMate 7100 Valve Controller – System Setup



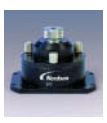
For use with



702	725	736	752	xQR41	741

Accessories

BackPack



Needle Nozzle Cleaning Station

ValveMate 7194 Auger Valve Controller

7360201 7194 Auger Valve Controller
0–2.0 bar (0–30 psi). Includes controller, input air hose and fittings, and 5-micron filter/regulator with air lubricator. Order power cord separately.

7362374 7194 Auger Valve Controller
0–7.0 bar (0–100 psi). Includes controller, input air hose and fittings, and 5-micron filter/regulator with air lubricator. Order power cord separately.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

See next page for compatible valves

The ValveMate 7194 Controller provides a fast, convenient way to adjust valve open time in increments as small as 0.001 seconds. This provides exceptional process control and eliminates the need to reprogram a PLC.

A precision air pressure regulator provides precise pressure control to the barrel reservoir and can be operated in continuous or pulse mode. The controller is available in a 0–2.0 bar (0–30 psi) version for solder pastes, silver conductive epoxies, and other filled fluids, and a 0–7.0 bar (0–100 psi) version for dispensing thicker filled materials, such as thermal compounds. Each 794 / 794-TC Series Auger Valve requires a ValveMate 7194 Controller for optimal valve performance.

Features and Benefits

- "On the fly" deposit adjustments
- Reverse capability mode provides clean cutoff for highly sticky materials
- Motor voltage range of 10–24 VDC
- Continuous or pulse pressure mode to reservoir
- Nonvolatile, power-off memory

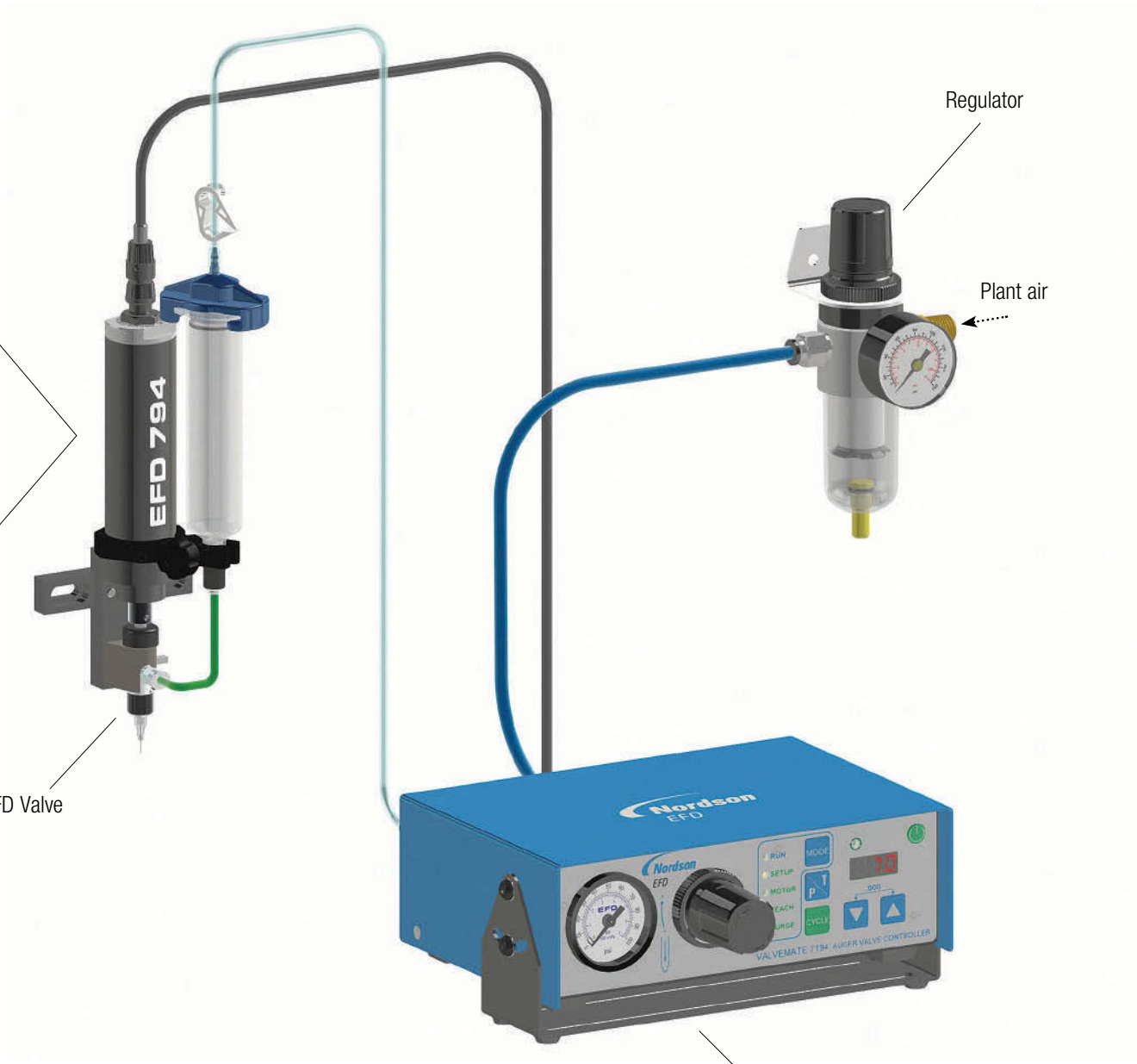
Learn more about EFD custom-made solder paste, print paste, flux, thermal compounds, and solder mask. See Solder Products for details.

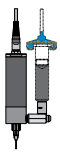
Specifications

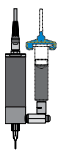
Cabinet size:	20.0W x 6.8H x 14.2D cm (7.87W x 2.68H x 5.59D")
Weight:	1.8 kg (3.9 lb)
Cycle rate:	Exceeds 400 per minute
Time range:	0.001–99.9 s
Electrical power input:	30 VDC (+/-2%), 1.33 Amp maximum
External power adapter:	100–240 VAC (+/-10%), ~50/60Hz input, 30 VDC (+/-2%), 1.33 Amp output, Switchcraft S761K locking DC plug or equivalent, desktop type, AC input: IEC 320 inlet

Feedback circuits:	EOC Out and Alarm Out: Electronic switch, 24 VDC, 100 mA maximum
Cycle initiate:	5–24 VDC signal, foot pedal, or contact closure initiate
Input air pressure:	4.5–7.0 bar (65–100 psi)
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited

ValveMate 7194 Valve Controller – System Setup







For use with **794** **794-TC**

Precision Spray Valve Systems

Spray Valves / Controllers

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

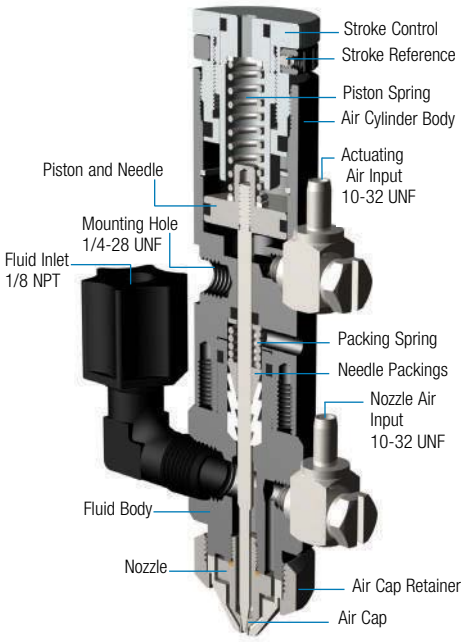
EFD offers a wide range of valves for spraying almost any fluid, from activators, coatings, inks, oils, and solvents —in accurate, repeatable amounts.

Our unique spray 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

Nordson EFD



781S Series General Purpose Spray Valve

7007031 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.

7021615 781S-SS-46F
Nozzle size is 1.17 mm (0.046") diameter, fan shape. All metal parts are passivated 303 stainless steel.

7021618 781S-SS-WF
Same as 781S-SS-46F except wide fan pattern is 2x the width.

7021613 781S-SS-28
Nozzle size is 0.71 mm (0.028") diameter. Round pattern, narrow angle. All metal parts are passivated 303 stainless steel.

7021611 781S-SS-14
Nozzle size is 0.36 mm (0.014") diameter. Round pattern, narrow angle. All metal parts are passivated 303 stainless steel.

7021617 781S-SS-WA
Same as 781S-SS except round pattern is 2x as large.

See Spray Valve Controllers for system setup

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").

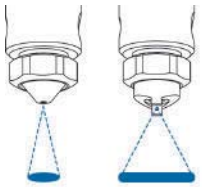
Features and Benefits

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

For use with

- Activators
- Coatings
- Greases
- Inks
- Liquid Fluxes
- Oils
- Silicones
- Solvents

SPRAY PATTERNS



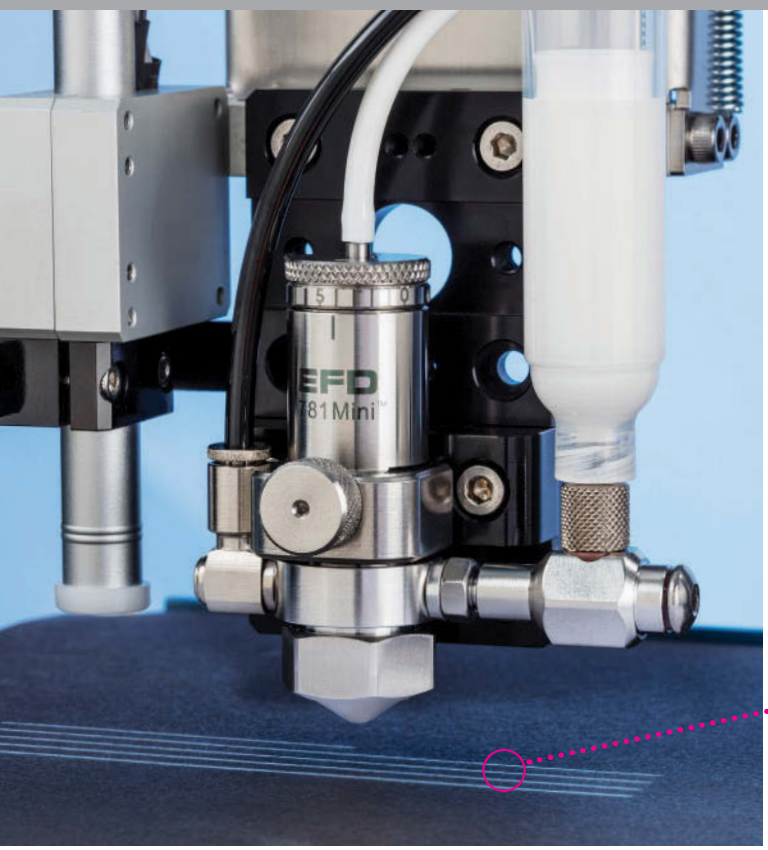
Download CAD Models:
www.nordsonefd.com/CAD

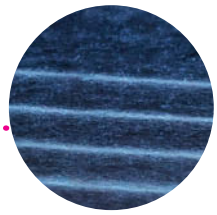
Specifications

Size:	104.6L x 26.9DIA mm (4.12L x 1.06DIA")
Weight:	781S-SS: 405.3 g (14.2 oz) 781S: 235.3 g (8.2 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	20.7 bar (300 psi)
Fluid inlet:	1/8 NPT female
Mounting:	(1) 1/4-28 UNF tapped hole
Cycle rate:	Exceeds 400 per minute

Air cylinder body / Fluid body:	781S-SS: 303 stainless steel 781S: Hard-coated anodized aluminum
Air cap:	303 stainless steel
Piston:	303 stainless steel
Needle and nozzle:	303 stainless steel
Maximum operating temperature:	102° C (215° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.





Narrow spray patterns as small as 1 mm wide

781Mini Series Spray Valve

7364002 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.

See Spray Valve Controllers for system setup

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

For use with

- Activators
- Coatings
- Inks
- Light Greases & Oils
- Liquid Fluxes
- Silicone Oils
- Solvents

www.nordsonefd.com/781MiniSpray

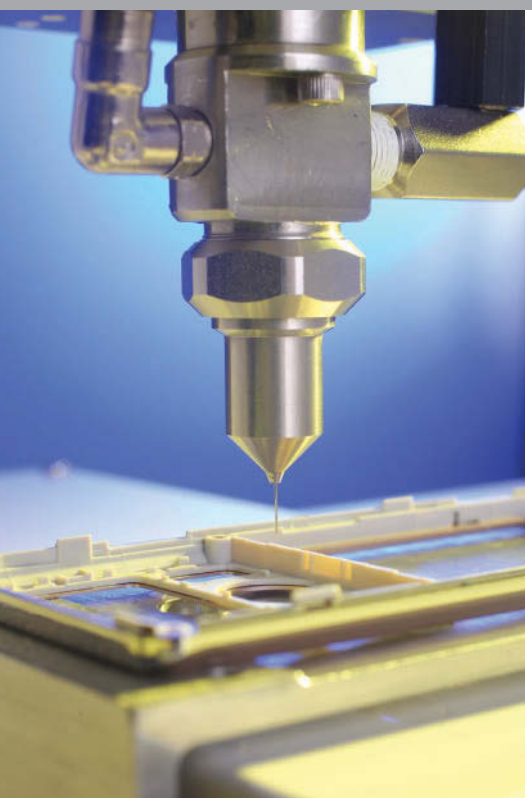
Order Valve Replacement Parts:
www.nordsonefd.com/ValveKits

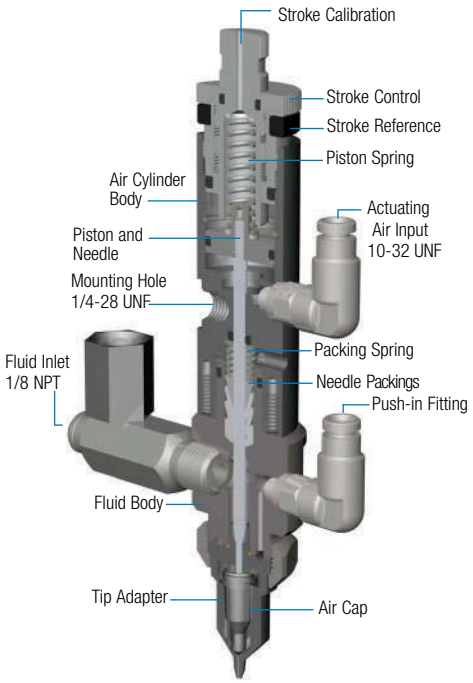
Specifications

Size:	71.4L x 22.4DIA mm (2.88L x 0.88DIA")
Weight:	141.0 g (5.0 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	7.0 bar (100 psi)
Fluid inlet:	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 and nozzle:	303 stainless steel
Maximum operating temperature:	102° C (215° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.





787MS-SS Series MicroSpray Valve

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.

See Spray Valve Controllers for system setup

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 0.3–0.1 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

For use with

- Activators
- Coatings
- Inks
- Liquid Fluxes
- Oils
- Silicones
- Solvents

TIP CENTERING GUIDE

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

Part #	Description
7027984	Replacement air cap
7027985	Centering Guide, 27/33 ga
7029405	Centering Guide, 23 ga
7029406	Centering Guide, 25 ga
7029407	Centering Guide, 30 ga
7029408	Centering Guide, 32 ga

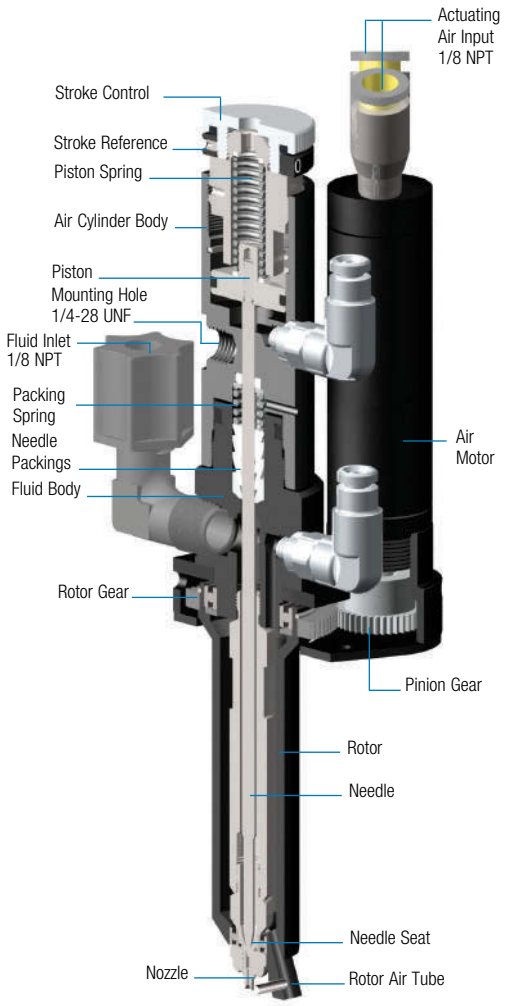
www.nordsonefd.com/787MS-Series

Specifications

Size:	131.6L x 26.9DIA mm (5.18L x 1.06DIA")
Weight:	336.0 g (11.8 oz)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	7.0 bar (100 psi)
Fluid inlet:	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
Air cap:	303 stainless steel
Piston:	303 stainless steel
Needle and nozzle:	303 stainless steel
Maximum operating temperature:	102° C (215° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.

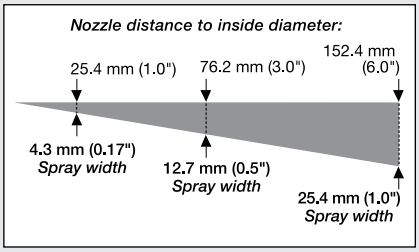


782RA Series Radial Spray Valve

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.

See 7160RA Valve Controller for system setup



Spray coverage shown 1/3 actual size.

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.

Features and Benefits

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

For use with

- Accelerators
- Activators
- Lubricants
- Primers
- Solvents

"Your valve did such a good job there's no reason to look elsewhere. I know it works."
– DLS Automation

Specifications

Size:	174.5L x 53.8DIA mm (6.87L x 2.12DIA")
Weight:	480.8 g (16.9 oz)
Motor air consumption:	< 0.3 SCFM at 5.4 bar (80 psi)
Nozzle air consumption:	1.5 SCFM at 2.1 bar (30 psi)
Actuating air pressure required:	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure:	20.7 bar (300 psi)
Fluid inlet:	1/8 NPT female
Mounting:	1/4-28 UNF tapped hole

Cycle rate:	Exceeds 300 per minute
Air cylinder body:	Hard-coated anodized aluminum
Fluid body:	Hard-coated anodized aluminum
Piston:	303 stainless steel
Needle and nozzle:	Stainless steel
Rotor:	Hard-coated anodized aluminum
Warranty:	1 year, limited

All stainless steel parts are passivated.
US Patent No. D376,376

Microcoat Lubrication System

The MC800 MicroCoat® System is a patented, different type of stock lubrication system that lets metal stampers apply the perfect amount of oil for each job.

The MC800 Controller operates up to eight valves. Precision flow controls permit the amount of lubricant applied by each valve to be adjusted independently. Valves can be mounted above or below the stock. When the system is initiated, steady air pressure supplied to the reservoir forces lubricant through the filter and flow controls, and out to the valves.

Whether you are looking for steady or pulsed lubrication, these unique lubrication systems provide uniform coverage without overspray or mist, using much less oil.

Features and Benefits

- Even, uniform coverage
- Expandable, modular system
- On the fly adjustment of oil coating
- No overspray or mist
- Easy “plug and play” setup

Custom Options

Please contact Nordson EFD for custom configuration.

For use with

- Blank Stock Coating
- Can End Pull Tabs
- Coil Stock Slitting
- Cooling Fin Forming
- Fine Blanking
- Foil Rolling
- Rust Prevention
- Tube Forming
- Valve/Wire Coating

MC800 MicroCoat Lubrication System

MicroCoat spray valves

7008020 MC785M
Standard fan spray valve up to 76.2 mm (3") coverage.

7008013 MC785M-WF
Wide fan spray valve up to 152.4 mm (6") coverage.

MicroCoat controllers

7008008 MC800
MicroCoat controller with 0–7.0 bar (0–100 psi) regulator.

MicroCoat fluid manifolds accept up to (4) flow controls

7008010 8101
Manifold with pressure sensor.

MicroCoat tank reservoirs

7023843 MC685M
3.8 liter (1 gal) acrylic see-through tank.

7023846 MC686M
7.5 liter (2 gal) acrylic see-through tank.

www.nordsonefd.com/MicrocoatVideo

Specifications

MC785M and MC785M-WF Valves

Size (with fittings):	66.3L x 49.3DIA mm (2.61L x 1.94DIA")
Weight:	206.4 g (7.3 oz)
Lubricant inlet hole:	1/8 NPT
Mounting:	6 mm tapped hole
Cycle rate:	Up to 60 per minute
Lubricant chamber:	Hard-coated anodized aluminum
Air cap:	303 stainless steel
Diaphragm:	Viton® with PTFE coating
Needle and nozzle:	303 stainless steel
Nozzle diameter:	1.17 mm (0.046")

MC800 Controller

Cabinet size:	14.6W x 19.1D x 27.6H cm (5.75W x 7.50D x 10.88H")
Weight:	4.8 kg (10.6 lb)
Cycle rate:	Up to 60 per minute
Pressure switch rating:	20VA, 240V
Air input required:	4.1 bar (60 psi) minimum
Tank air pressure regulator:	2.0 bar (30 psi) maximum
Nozzle air regulator:	2.0 bar (30 psi) maximum
Approvals:	CE, UKCA
Warranty:	1 year, limited

All stainless steel parts are passivated.
US Patent No. D398,705

ValveMate Spray Controllers

The ValveMate 8040 Spray Valve Controller provides precise control of nozzle air flow and spray time.

Features include an adjustable external actuating air and nozzle air manifold block, (2) independent programmable actuation channels, programmable shut-off delay of nozzle air to provide a post-cycle nozzle cleaning, digital time readout and push-button time change with separate test cycle button.

Features and Benefits

- 2 independent programmable actuation channels
- Low Volume Low Pressure (LVLP) for high transfer efficiency
- Cutoff air delay (0 to 2.5 seconds)
- Nonvolatile, power-off memory
- Fast-response pneumatic solenoids

ValveMate 8040 Spray Valve Controller

7022120 8040 Spray Valve Controller
Includes controller, stand, panel mount bezel and spring clips, filter regulator, and air manifold assembly with pre-wired pressure sensor.

Order single or dual valve solenoid assemblies separately.
For each ValveMate 8040 ordered, select the appropriate solenoid assembly for the number of spray valves used. Each solenoid kit includes the pre-wired 6 pin connector and housing, 3.6 m (12 ft) cable cordset, input air hose, and push-in fittings.

7022250 Single
Solenoid valve kit, two in-line solenoids for nozzle/actuating air.

7022251 Dual
Solenoid valve kit, two dual blocks for nozzle/actuating air.

Order power cord separately.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

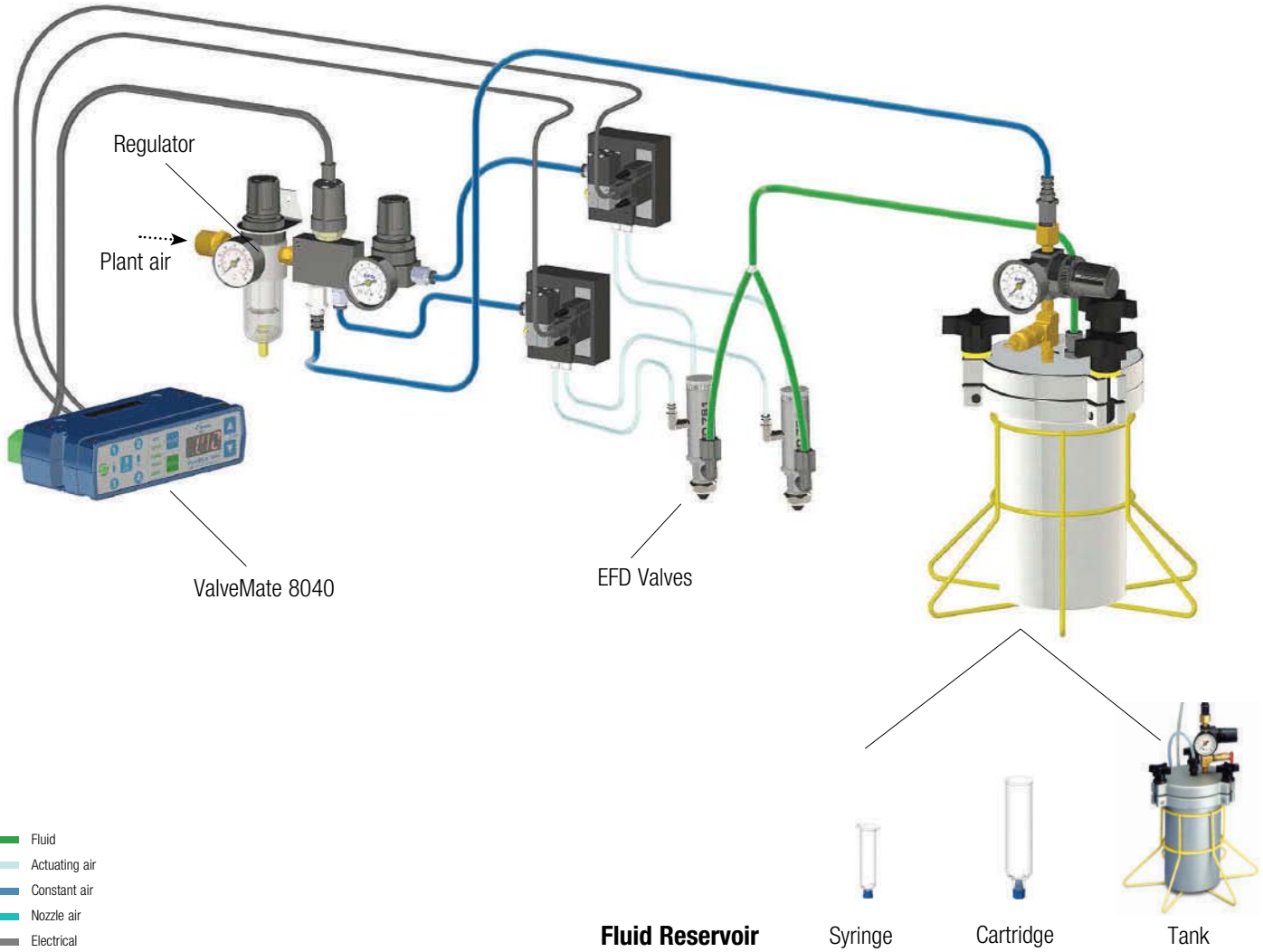
See next page for compatible valves

Download CAD Models:
www.nordsonefd.com/CAD

Specifications

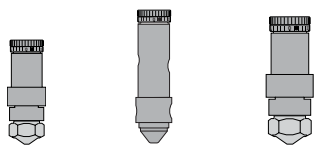
Cabinet size:	18.3W x 5.1H x 8.6D cm (7.20W x 2.00H x 3.38D")
Weight:	0.3 kg (0.6 lb)
Cycle rate:	Exceeds 400 per minute
Time range:	0.001–99.9 s
Input AC (to power supply):	100–240 VAC, 50/60Hz
Output DC (from power supply):	24 VDC, 1.25 Amp maximum
Feedback circuits:	5–24 VDC NC solid-state switch, 100 mA maximum
Cycle initiate:	5–24 VDC signal
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited

ValveMate 8040 Valve Controller – System Setup



Fluid Reservoir
(Shown with tank)

For use with



781Mini **781** **787**

ValveMate 7140 Single Spray Valve Controller

7015341 7140 Spray Valve Controller
Features 0–2.0 bar (0–30 psi) nozzle air pressure control. Includes controller, stand, panel mount bezel and spring clips, filter regulator, and air manifold assembly with pre-wired pressure sensor. Order power cord separately.

7015429 7140 Spray Valve Controller
Features 0–7.0 bar (0–100 psi) nozzle air pressure control for spraying thicker materials. Includes controller, stand, panel mount bezel and spring clips, filter regulator, and air manifold assembly with pre-wired pressure sensor. Order power cord separately.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

See next page for compatible valves

The ValveMate 7140 Spray Valve Controller is designed for single spray valve applications and features internal solenoids. It is a fast, convenient way to adjust spray valve open time in increments as small as 0.001 seconds.

Adjustable nozzle air pressure regulator provides Low Volume Low Pressure (LVLP) air to the nozzle for high transfer efficiency without overspray. The result is exceptional spray pattern definition without time-consuming programming or mechanical adjustments that require the production line to be shut down.

The controller is designed for semi-automated or fully automated dispensing applications and features an internal control air solenoid.

Features and Benefits

- Timed or continuous spray
- Clean, clog-free cutoff
- Fast-response pneumatic solenoids
- Digital air output display (psi/bar)
- “On the fly” adjustment

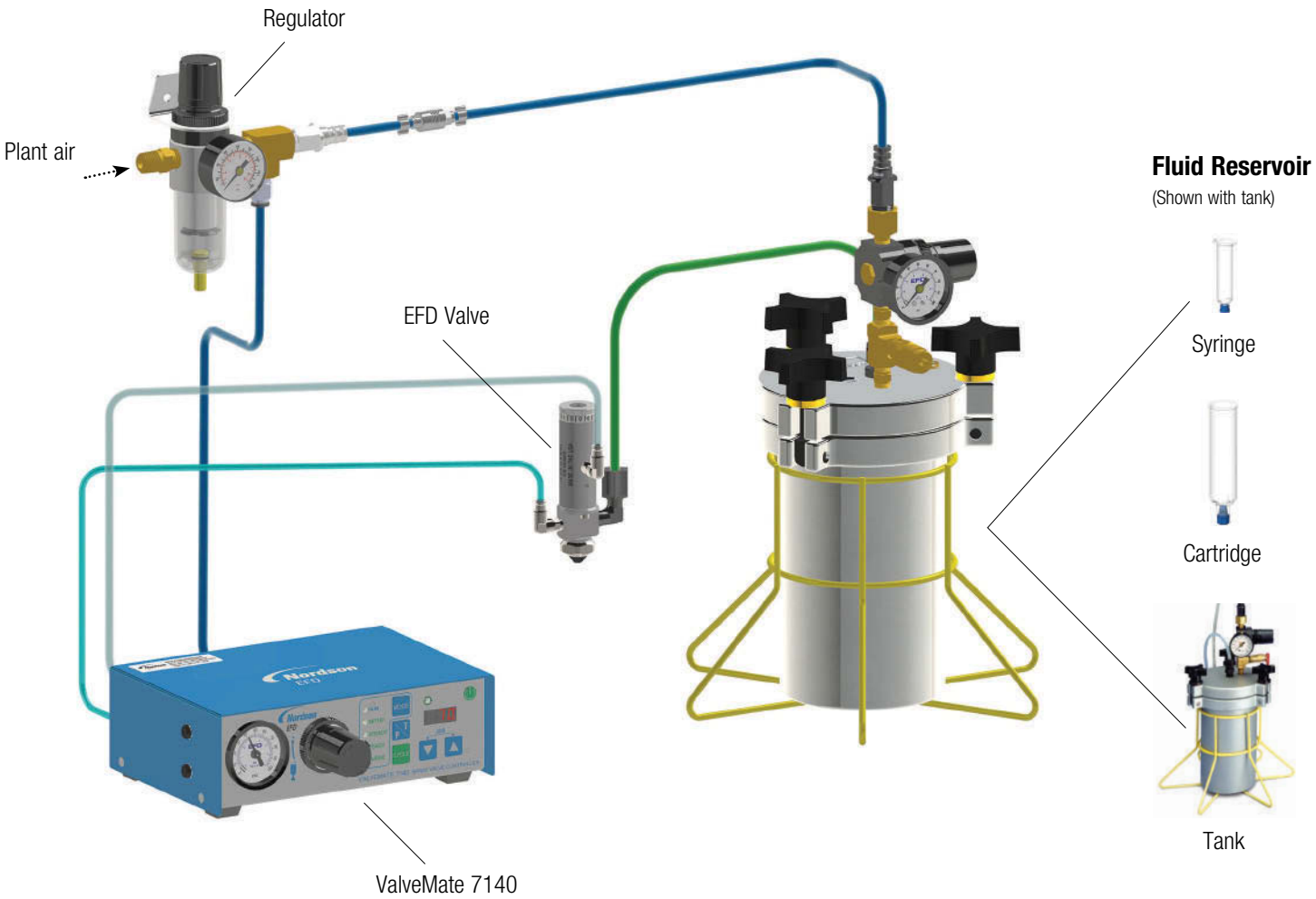
Download CAD Models:
www.nordsonefd.com/CAD

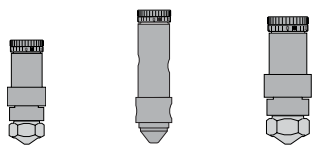
Specifications

Cabinet size:	20.0W x 6.8H x 14.2D cm (7.87W x 2.68H x 5.59D")
Weight:	1.8 kg (3.9 lb)
Cycle rate:	Exceeds 400 per minute
Time range:	0.001–99.9 s
Electrical power input:	24 VDC (± 5%), 0.63 Amp maximum
External power adapter:	100–240 VAC (± 10%), ~50/60Hz input, 24 VDC (± 5%), 0.63 Amp output, Switchcraft S761K locking DC plug or equivalent, wall mount, changeable AC plugs

Feedback circuits:	5–24 VDC NC solid-state switch, 100 mA maximum
Cycle initiate:	5–24 VDC signal, foot pedal, or contact closure initiate
Input air pressure:	5.5–7.0 bar (80–100 psi)
Air consumption:	3 CFM at maximum 400 cycles per minute
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited

ValveMate 7140 Valve Controller – System Setup





For use with	781Mini	781	787

ValveMate 7160RA Radial System Controller

7029739 7160RA Radial Spray Valve Controller
Accessories included with each ValveMate 7160RA controller: Input air hose and fittings, 5-micron filter/regulator with air lubricator, universal mounting bracket, and power cord.

See next page for compatible valves

The ValveMate 7160RA Controller provides the proper controls required for consistent radial valve operation.

Unique microprocessor circuitry provides precise control of nozzle air, valve open time, and drive motor control solenoid.

Features include digital readout of spray on-time and nozzle air pressure. The 7160RA also includes a programmable shutoff delay and a test cycle button to initiate spray cycles during setup.


Radial Spray System


Radial Spinner System

Features and Benefits

- Timed or continuous spray/air motor rotation
- Fast-response pneumatic solenoids
- Easily interfaced with a PLC
- Push-button time setting or one touch time programming

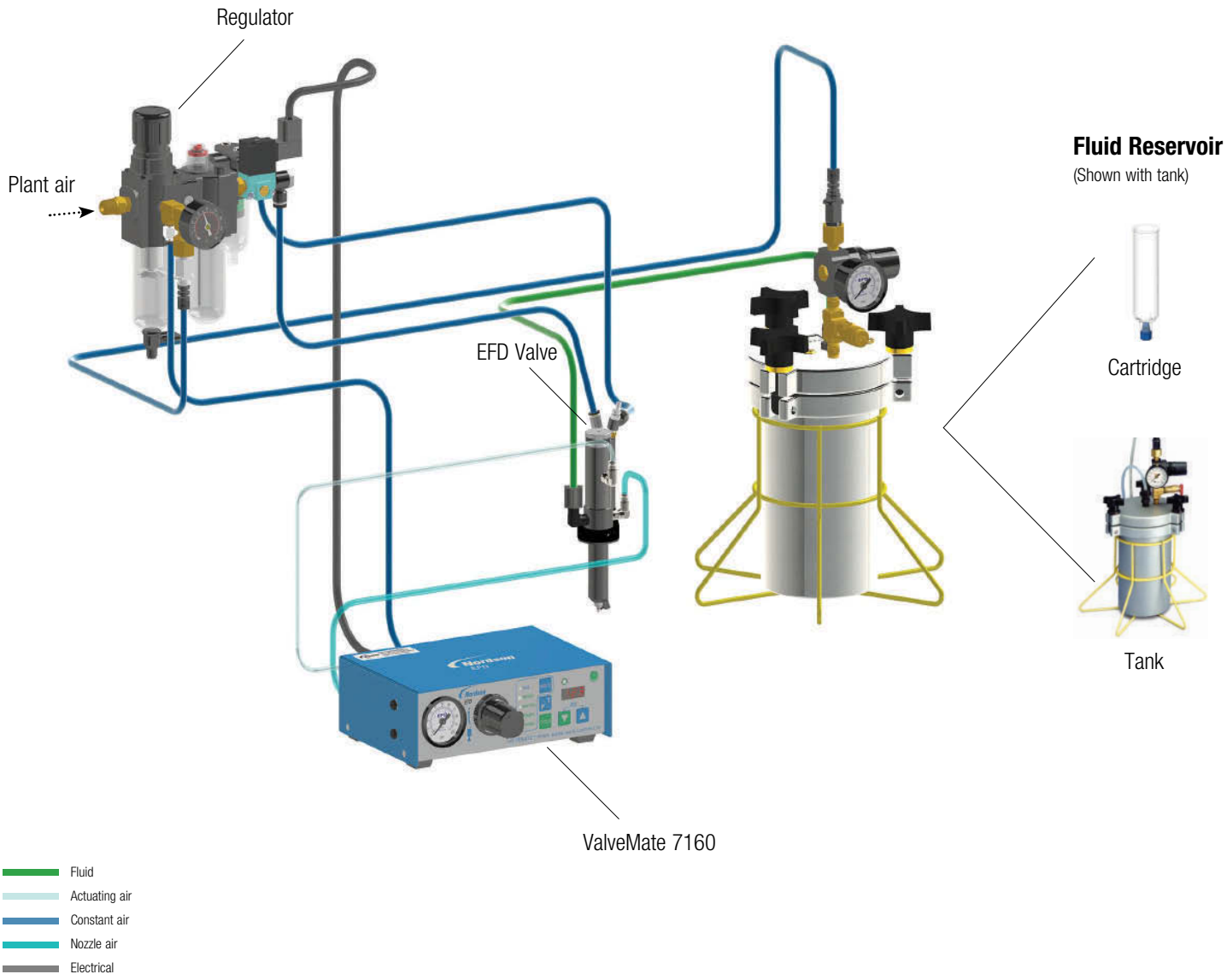
Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Cabinet size:	20.0W x 6.8H x 14.2D cm (7.87W x 2.68H x 5.59D")
Weight:	1.8 kg (3.9 lb)
Cycle rate:	Exceeds 400 per minute
Time range:	0.001–99.9 s
Electrical power input:	24 VDC (± 5%), 0.63 A maximum
External power adapter:	100–240 VAC (± 10%), ~ 50/60 Hz input, 24 VDC (± 5%), 0.63 A output, Switchcraft S761K locking DC plug or equivalent, wall mount, changeable AC plugs

Feedback circuits:	EOC Out & Alarm Out: Electronic switch, 24 VDC, 100 mA maximum
Cycle initiate:	5–24 VDC signal, foot pedal, or contact closure initiate
Input air pressure:	5.5–7.0 bar (80–100 psi)
Air consumption:	3 CFM at maximum 400 cycles per minute
Approvals:	CE, UKCA, TUV, RoHS, WEEE, China RoHS
Warranty:	1 year, limited

ValveMate 7160 Valve Controller – System Setup



For use with

782RA

7860C-RS

Precision Volumetric Dispensing Systems

Progressive Cavity Pumps (PCP) / Controllers

For applications that require volumetric dispensing independent of fluid viscosity or changes in viscosity over time, Nordson EFD offers the 797PCP Series progressive cavity pumps and 7197PCP controllers.

Designed with core components — a rotor and stator — that form a perfectly sealed metering chamber, the 797PCP pump prevents shear, pulsation, and squeezing of assembly fluids. This makes it ideal for dispensing highly viscous, filled, or abrasive pastes and shear-sensitive fluids.

The self-sealing chamber dispenses exact, repeatable volumes of fluid as small as 0.01 mL per revolution for exceptional process control. EFD also offers a 797PCP-2K pump for highly accurate metering and dispensing of two-part assembly fluids. Compatibility with EFD static mixers allows us to deliver a total system solution.

Our 7197PCP Series controllers include ValveMate benchtop and DIN rail versions. Each offers intuitive programming of the 797PCP and 797PCP-2K pumps to deliver deposit volume accuracy and repeatability of ±1%. The controllers provide multiple programming modes — Line, Volume, Weight, or Timed — to meet the unique needs of your application.

Nordson EFD

Progressive Cavity Pump Systems

The 797PCP progressive cavity pump dispenses exact, repeatable volumes of fluid as small as 0.01 mL per revolution for applications that require extremely reliable process control. Designed with a perfectly sealed metering chamber, the pump provides continuous volumetric dispensing of a wide range of fluids independent of fluid viscosity or changes in viscosity over time. A stainless-steel pump is available for medical device dispensing applications.

Its continuous seal prevents shear, pulsation, and squeezing of the fluid, making the 797PCP ideal for dispensing abrasive, filled materials, and UV-cure adhesives.

Features and Benefits

- Highly precise fluid volume accuracy and repeatability of ±1%
- Deposit volume assurance improves process control
- Continuous volumetric dispensing independent of viscosity variation
- Suck-back feature provides clean cut-off to eliminate drip and drool
- Modular design for versatile use. Easy disassembly reduces downtime for maintenance

For use with

- Adhesives & UV-cure Adhesives
- Epoxies
- Greases & Oils
- Silicones
- Solder Pastes*
- Thermal Greases*, RTVs & Sealants

* Conditional depending on filler percentage, type, size, and characteristics. Contact EFD for recommendation.

797PCP Series Pump

7364197 797PCP-0.01 Pump
Features 0.01 mL dispensing volume per revolution and flow rate of 0.13 to 1.95 mL per minute. Anodized aluminum construction.

7364198 797PCP-0.05 Pump
Features 0.05 mL dispensing volume per revolution and flow rate of 0.59 to 8.85 mL per minute. Anodized aluminum construction.

7364199 797PCP-0.15 Pump
Features 0.15 mL dispensing volume per revolution and flow rate of 1.63 to 24.5 mL per minute. Anodized aluminum construction.

7366147 SS-797PCP-0.15 Pump
Features 0.15 mL dispensing volume per revolution and flow rate of 1.63 to 24.50 mL per minute. Stainless-steel construction.

7366004 797PCP-0.30 pump
Features 0.30 mL dispensing volume per revolution and flow rate of 0.30 to 45.0 mL per minute. Andozied aluminum construction.

See PCP Controllers for system setup

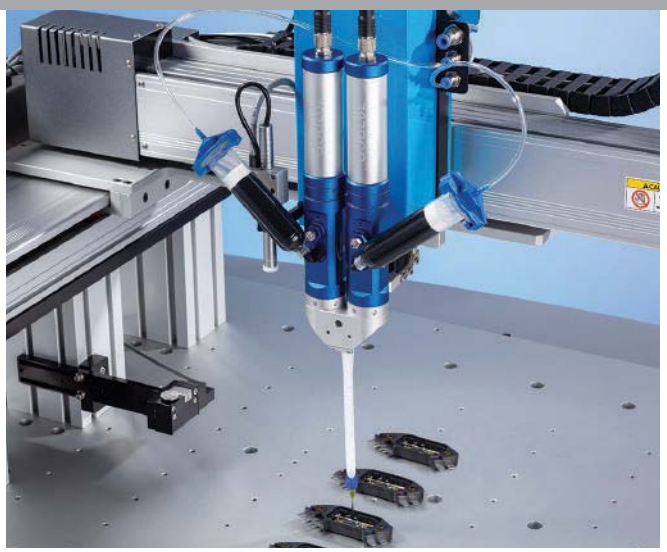
www.nordsonefd.com/797PCPSeries

Specifications

Size:	797PCP-0.01 / 0.05: 261.4L x 36.0DIA mm (10.29L x 1.42DIA") 797PCP-0.15 / 0.30: 297.9L x 36.0DIA mm (11.73L x 1.42DIA") SS-797PCP-0.15: 298.8L x 36.0DIA mm (11.76L x 1.42DIA")
Weight:	797PCP-0.01 / 0.05: 550.0 g (1.2 lb) 797PCP-0.15 / 0.30: 620.0 g (1.4 lb) SS-797PCP-0.15: 1.25 kg (2.75 lb)
Rotor speed:	10–150 RPM (depending on maximum motor speed)
Flow rate:	797PCP-0.01: 0.13–1.95 mL/min 797PCP-0.05: 0.59–8.85 mL/min 797PCP-0.15: 1.63–24.50 mL/min 797PCP-0.30: 0.30–45.0 mL/min
Dispensing volume per revolution:	797PCP-0.01: 0.009 mL 797PCP-0.05: 0.047 mL 797PCP-0.15: 0.139 mL 797PCP-0.30: 0.304 mL

Repeatability:	±1%
Fluid inlet:	1/8 NPT
Fluid outlet:	Luer fitting
Mounting:	M4
Fluid chamber:	Standard: Anodized aluminum Stainless steel: 303 stainless steel
Rotor:	316Ti stainless steel
Stator:	FFKM (perfluoroelastomer)
Operating temperature:	10–40° C (50–104° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.



The modular 797PCP-2K progressive cavity pumps precisely meter accurate ratios of part A and part B materials through EFD static mixers for highly repeatable dispensing of two-component assembly fluids. Compatibility with square and spiral bayonet mixers of various sizes and styles makes the 797PCP-2K versatile for use in many types of dispensing applications. A programmable suck-back feature prevents drooling at the end of each dispense cycle.

Features and Benefits

- Highly precise, repeatable volumetric dispensing of 2K fluids
- Modular design allows for multiple mix ratio combinations for a wide range of applications
- Easy disassembly and cleaning reduces downtime for maintenance
- Total system solution — pump, controller, and EFD static mixers — provides industry-leading performance and simplifies installation

For use with 2K fluids

- Acrylics
- Epoxies
- RTVs & Sealants
- Silicones
- Urethanes

Recommended Mixers

Series 190 and 295
www.nordsonefd.com/2KMixers

797PCP-2K Series Pump

7364203 797PCP-2K-0.01 Pump
Features 0.01 mL dispensing volume per revolution and flow rate of 0.13 to 1.95 mL per minute.

7364204 797PCP-2K-0.05 Pump
Features 0.05 mL dispensing volume per revolution and flow rate of 0.59 to 8.85 mL per minute.

7364205 797PCP-2K-0.15 Pump
Features 0.15 mL dispensing volume per revolution and flow rate of 1.63 to 24.5 mL per minute.

7366005 797PCP-2K-0.30 Pump
Features 0.30 mL dispensing volume per revolution and flow rate of 0.30–45.0 mL per minute.

7364206 797PCP-2K Manifold
Includes one 2K manifold that is required for configuring a 797PCP-2K system. Accommodates two 797PCP-2K pumps and EFD bayonet static mixers for 2K dispensing applications.

Purchase two pumps of the same size for 1:1 ratio dispensing. For other mix ratios, consult EFD for an expert recommendation based on application testing. Manifold must be purchased separately.

See PCP Controllers for system setup

www.nordsonefd.com/797PCPSeries-2K

Specifications

Size:	797PCP-0.01 / 0.05: 261.4L x 36.0DIA mm (10.29L x 1.42DIA") 797PCP-0.15 / 0.30: 297.9L x 36.0DIA mm (11.7l x 1.42DIA")
Weight:	797PCP-0.01 / 0.05: 550.0 g (1.2 lb) per pump 797PCP-0.15 / 0.30: 620.0 g (1.4 lb) per pump
Rotor speed:	10–150 RPM (depending on maximum motor speed)
Flow rate:	797PCP-0.01: 0.13–1.95 mL/min per pump 797PCP-0.05: 0.59–8.85 mL/min per pump 797PCP-0.15: 1.63–24.50 mL/min per pump 797PCP-0.30: 0.30–45.0 mL/min per pump
Dispensing volume per revolution:	797PCP-0.01: 0.009 mL per pump 797PCP-0.05: 0.047 mL per pump 797PCP-0.15: 0.139 mL per pump 797PCP-0.30: 0.304 mL per pump

Repeatability:	±1%
Fluid inlet:	1/8 NPT
Fluid outlet:	Static mixer adapter
Mounting:	M4
Fluid chamber:	Anodized aluminum
Rotor:	316Ti stainless steel
Stator:	FFKM (perfluoroelastomer)
Operating temperature:	10–40° C (50–104° F)
Warranty:	1 year, limited

All stainless steel parts are passivated.

ValveMate 7197PCP Controller

7364076 ValveMate 7197PCP Controller
Includes foot pedal. Order power cord separately.

7364177 ValveMate 7197PCP-2K Controller
Includes foot pedal. Order power cord separately. Use with 797PCP-2K Series pumps.

7014871 American Plug Power Cord Kit

7014872 European Plug Power Cord Kit

The ValveMate 7197PCP Controller puts precise adjustment of volumetric dispensing parameters at your fingertips with a high-resolution touchscreen interface. This provides intuitive control of 797PCP Series progressive cavity pumps at factory workstations.

Advanced features, such as the ability to change the rotor speed when dispensing a line around corners, deliver a high level of process control. Calibration functionality makes dispensing results more accurate and repeatable after initial setup and setup adjustments.

Features and Benefits

- Intuitive touchscreen interface streamlines pump setup and programming at the workstation
- Exact adjustment of dispensing parameters improves process control

Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Cabinet size:	21.2W x 10.8H x 17.3D cm (8.33W x 4.27H x 6.82D")
Weight:	1.8 kg (4.0 lb)
Rotor speed:	10–150 RPM
Time range:	0.001–600,000 ms (1 s to 10 min)
Electrical power input:	24 VDC (±2%), 3.75 Amp maximum

Feedback circuits:	Electronic switch, 24 VDC, 100 mA maximum
Cycle initiate:	Foot pedal
Approvals:	CE, UKCA, TUV, RoHS, China RoHS, WEEE
Warranty:	1 year, limited

7197PCP-DIN Controller

7364116 7197PCP-DIN Controller
Includes breakout board and DB-15 cable. Motor cable sold separately. For 2K applications, two DIN controllers are required.

The 7197PCP-DIN controller provides precise control of volumetric dispensing parameters for 797PCP and 797PCP-2K progressive cavity pumps. It features a small form factor designed for mounting on DIN rails for easier installation on automated production lines.

The ability to set dispensing parameters using an intuitive, web-based interface reduces factory floor adjustments of pump settings. An Ethernet connection simplifies integration with Smart Factory technology.

Advanced features, such as the ability to change the rotor speed when dispensing a line around corners, deliver a high level of process control. A calibration feature makes dispensing results more accurate and repeatable after initial setup and setup adjustments.

Features and Benefits

- Small form factor reduces system footprint at assembly stations
- Easy-to-use web interface streamlines setup and operation of pumps
- Exact adjustment of dispensing parameters improves process control
- Ethernet compatibility supports Smart Factory integration

Download CAD Models:
www.nordsonefd.com/CAD

Specifications

Cabinet size:	3.2W x 9.4H x 14.6D cm (1.27W x 3.70H x 5.75D")
Weight:	0.7 kg (1.5 lb)
Rotor speed:	10–150 RPM
Time range:	0.001–600,000 ms (1 s to 10 min)
Electrical power input:	24 VDC (±2%), 3.75 Amp maximum

Feedback circuits:	Electronic switch, 24 VDC, 100 mA maximum
Cycle initiate:	24 VDC signal
Approvals:	CE, UKCA, TUV, RoHS, China RoHS, WEEE
Warranty:	1 year, limited

7197PCP-DIN-NX Controller

7365704 7197PCP-DIN-NX Controller
Includes breakout board and DB-15 cable. Motor cable sold separately. Also features NX protocol via Ethernet. For 2K applications, two DIN controllers are required.

The network capable 7197PCP-DIN-NX controller provides precise control of volumetric dispensing parameters for 797PCP and 797PCP-2K Series progressive cavity pumps.

It allows direct communication with a Programmable Logic Controller (PLC) or other manufacturing plant controllers using the NX protocol (network connectivity) via Ethernet.

This technology enhancement allows operators to control all dispensing parameters directly from a PLC or computer, giving the operator complete remote control of our 797PCP volumetric dispensing pumps.

Features and Benefits

- Ethernet control with NX protocol
- Communication between PLC and DIN controller
- Line, Volume, Weight, and Timed dispense modes for a wide range of dispensing applications
- Nordson NX Client Application included, Windows-based graphical user interface (GUI)
- Improve operational efficiency by programming 797PCP pumps directly from a central PLC
- Support Smart Factory integration using Ethernet compatibility with NX protocol
- Save time by updating multiple controllers simultaneously from a centralized location
- Verify rotor movement with encoder count feedback

Download CAD Models:
www.nordsonefd.com/CAD

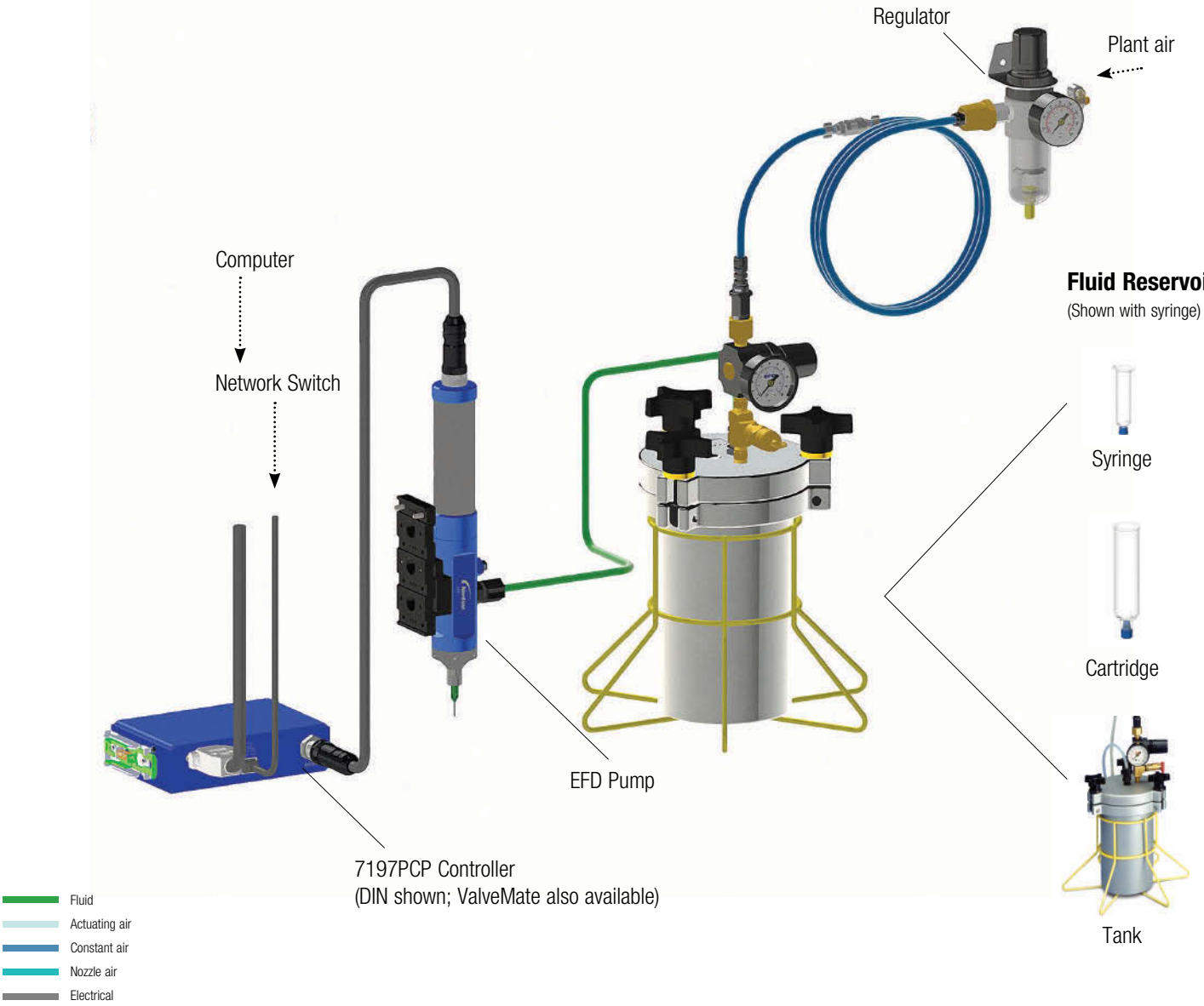
www.nordsonefd.com/7197PCP-DIN-NX

Specifications

Cabinet size:	3.2W x 9.4H x 14.6D cm (1.27W x 3.70H x 5.75D")
Weight:	0.7 kg (1.5 lb)
Rotor speed:	10–150 RPM
Time range:	0.001–600,000 ms (1 s to 10 min)
Electrical power input:	24 VDC (±2%), 3.75 Amp maximum

Feedback circuits:	Electronic switch, 24 VDC, 100 mA maximum
Cycle initiate:	24 VDC signal
Approvals:	CE, TUV, RoHS, China RoHS, WEEE
Warranty:	1 year, limited

ValveMate 7197PCP Controller – System Setup



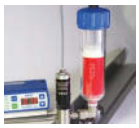
For use with **797PCP** **797PCP-2K**

Tanks, Reservoirs, and Pumps

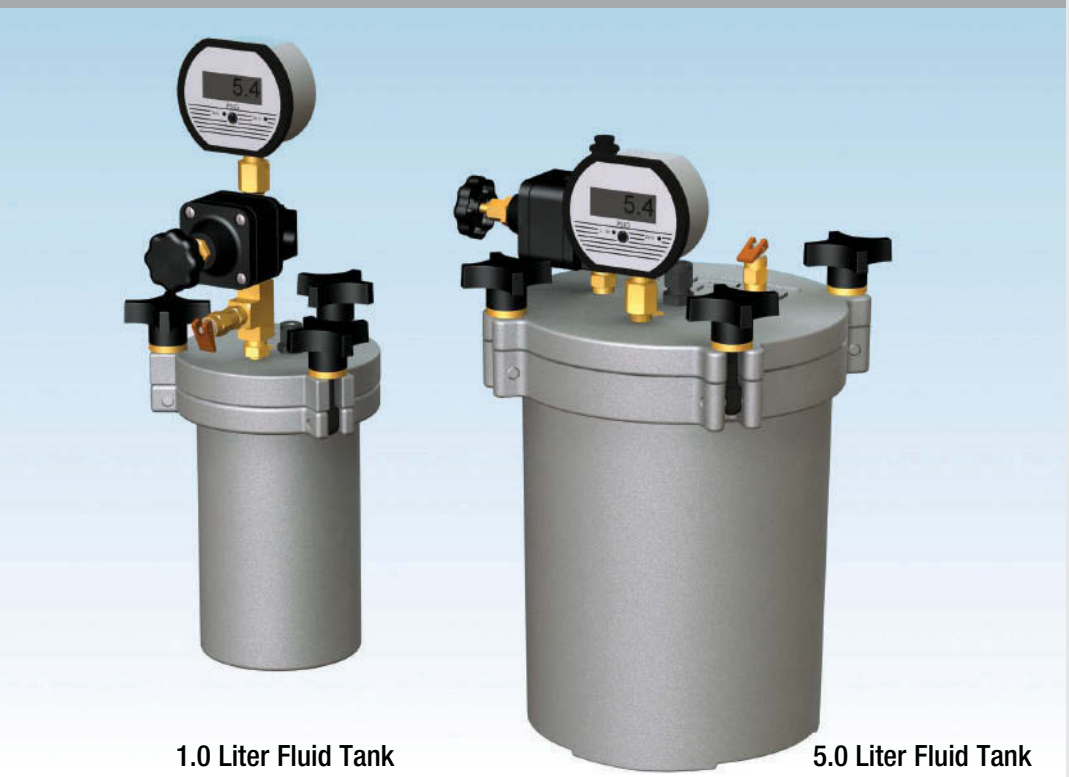
Nordson EFD reservoirs maintain steady fluid pressure to produce the most accurate, repeatable deposits possible. Bulk unloaders provide superior flow properties when dispensing high-viscosity adhesive and sealant materials.

Choose from a variety of options to meet your application needs. To learn more about the EFD systems used with these reservoirs and tanks, take a look at our valves and automated dispensing systems.

Nordson EFD

TANKS, RESERVOIRS, AND PUMPS							
Type	 Syringe Barrels, in Clear, Amber, Green, or Black	 Cartridge Retainer Systems with Regulators	 1/10 Gallon Retainer System with Regulator	 1L & 5L Precision Digital Gauge Tanks	 1L & 5L Analog Gauge Tanks	 19L Stainless Steel Analog Tanks	 5-Gallon Pail Analog Tanks
Volume	3cc–70cc (3–70 ml)	2.5 oz–32 oz (75-960 ml)	1/10 gal (300 ml)	1 liter & 5 liter (0.26 gal & 1.32 gal)	1 liter & 5 liter (0.26 gal & 1.32 gal)	19 liter (5 gal)	19 liter (5 gal)
Recommended Fluid Viscosity	All Fluids	All Fluids	Medium-to-High Viscosities	← Low-to-Medium Viscosities (pourable / self-leveling) →			
Air Pressure	—	0-1.0 bar (0-15 psi) 0-7.0 bar (0-100 psi)	0-7.0 bar (0-100 psi)	0-0.7 bar (0-10 psi) 0-7.0 bar (0-100 psi)	0-1.0 bar (0-15 psi) 0-7.0 bar (0-100 psi)	0-1.0 bar (0-15 psi) 0-7.0 bar (0-100 psi)	0-7.0 bar (0-100 psi)
Float Switch	—	—	—	Optional[1]	Optional[1]	Optional	No
Features & Benefits	· Limits fluid waste · Reduces maintenance and cleanup · Assembly fluids often come packaged in EFD syringe barrels · Use for fluids with short shelf life	· Ideal for low-to-medium pressure dispensing from cartridges · Clear retainer allows visual monitoring of fluid level · Accepts cartridges	· Designed for use with pre-filled caulking tubes	· Digital gauge delivers exceptional full-to-empty fluid pressure control, regardless of input pressure fluctuations · Accepts pre-filled 1-pound and 1-liter bottles or pourable fluids	· Maintains steady fluid pressure · Accepts pre-filled 1-pound and 1-liter bottles or pourable fluids	· Maintains steady fluid pressure · Ideal for materials that don't require cleaning, such as oil, solvents, and water · Accepts only pourable fluids	· Maintains steady fluid pressure · No pouring necessary · Eliminates risk of introducing air bubbles · Accepts pre-filled 5-gallon pails
Production Capacity	Low Volume	Low-to-Medium Volume	Low-to-Medium Volume	Medium-to-High Volume	Medium-to-High Volume	High Volume	High Volume

[1] 5 liter (0.26 gal) tanks are available with capacitive (non-contact) fluid level sensor
[2] Please note that the ratio pumps do not come with 5-55 gallon tanks. Those are purchased separately.
[3] Low/empty drum indication with light towers.



1.0 Liter Fluid Tank

5.0 Liter Fluid Tank

Precision Regulator/ Digital Gauge Fluid Reservoirs

7013460 Tank
1.0 liter Tank with 0–0.7 bar (0–10 psi) regulator.

7013489 Tank
1.0 liter Tank with 0–7.0 bar (0–100 psi) regulator.

7013430 Tank
5.0 liter Tank with 0–0.7 bar (0–10 psi) regulator.

7013490 Tank
5.0 liter Tank with 0–7.0 bar (0–100 psi) regulator.

All necessary fittings and feed tubing are included with each Fluid Tank.

Precision fluid tank pressure control is essential to ensure consistent, accurate deposits from the dispense valve. EFD's precision regulator/digital gauge tanks offer exceptional full-to-empty fluid pressure control, regardless of input pressure fluctuations.

Available in 0–10 psi (0–0.7 bar) for low viscosity fluids and 0–100 psi (0–7.0 bar) for medium- to high-viscosity fluids.

Features and Benefits

- Precision fluid pressure regulation/digital readout for exact fluid pressure control
- Repeatability — from one shift to the next, precision regulator/digital gauge can be reset to exact pressure setting
- Tighter setting tolerances — pressures can be set to tenths of psi
- Fast response, robust pressure regulator

"I wanted to let you know how much your company has helped me. You have excellent products and a great support group."
– Puritan Bennet

Download CAD Models:
www.nordsonefd.com/CAD

Specifications

1.0 Liter Tank	
Tank body:	Cast aluminum
Capacity:	1.0 liter
Weight:	3.0 kg (6.60 lb)
Height:	350 mm (13.75")
Diameter (cover maximum):	172 mm (6.75")
Maximum operating pressure:	7.0 bar (100 psi)
Maximum operating temperature:	50° C (122° F)

5.0 Liter Tank	
Tank body:	Cast aluminum
Capacity:	5.0 liter
Weight:	9.1 kg (20.1 lb)
Height:	413 mm (16.25")
Diameter (cover maximum):	251 mm (9.85")
Maximum operating pressure:	7.0 bar (100 psi)
Maximum operating temperature:	50° C (122° F)

Analog Gauge Fluid Reservoirs

7010004 615DTH Tank
1.0 liter tank with 7.0 bar (100 psi) regulator.

7020186 626DTH Tank
5.0 liter tank with 7.0 bar (100 psi) regulator.

7020189 626DTL Tank
5.0 liter tank with 1.0 bar (15 psi) regulator.

7362776 5L Tank
5.0 liter tank with 7.0 bar (100 psi) regulator and capacitive level sensor.

Float Switches

7020109 Float Switch for 1L Tanks
Float switch can be used to indicate low fluid levels in 615DT tanks.

7020180 Float Switch for 5L Tanks
Float switch can be used to indicate low fluid levels in 626DT tanks.

EFD fluid tanks maintain steady fluid pressure, prevent fluid contamination and evaporation, and contain fumes. Tanks are available with 0-15 psi (0-1.0 bar) or 0-100 psi (0-7.0 bar) constant-bleed air regulators to handle different fluid viscosities.

The air regulator is selected based on fluid viscosity. Watery fluids require the 0-15 psi (0-1.0 bar) regulator, while thicker fluids need the 0-100 psi (0-7.0 bar) regulator. Since tanks are charged by plant air, we recommend the 5-micron filter/regulator (#7002002) to filter contaminants.

Each fluid tank is shipped complete with constant-bleed precision air regulator and gauge, air hose with shutoff valve, liner, and fluid feed tubing.

615 Series
1.0 Liter Tanks
Accommodates one pound/one liter bottles. Recommended for pourable fluids only.

626 Series
5.0 Liter Tanks
Fluid can be poured into the liner or the fluid container may be put into the reservoir for direct dispensing.

Specifications

615DTH Tanks	
Tank body:	Cast aluminum
Replaceable liner:	Polyethylene (0.95 liter capacity)
Inside diameter:	9.7 cm (3.82")
Inside depth:	17.4 cm (6.87")
Overall width:	17.3 cm (6.81")
Overall height:	35.6 cm (14.01")
Regulator & gauge:	615DTH: 7.0 bar (100 psi) 615DTL: 1.0 bar (15 psi)
Maximum operating pressure:	7.0 bar (100 psi)

626DTH / 626DTL Tanks	
Tank body:	Cast aluminum
Replaceable liner:	Polyethylene (3.8 liter capacity)
Inside diameter:	17.3 cm (6.81")
Inside depth:	24.8 cm (9.75")
Overall width:	28.3 cm (11.14")
Overall height:	40.6 cm (15.98")
Regulator & gauge:	626DTH: 7.0 bar (100 psi) 626DTL: 1.0 bar (15 psi)
Maximum operating pressure:	7.0 bar (100 psi)

Nordson EFD's 19L (5-gal) tanks are available for higher volume dispensing of low- to medium-viscosity fluids which are pourable or self-leveling. Two types are available.

Standard EFD stainless steel 19 Liter tanks are ideal for materials that do not require cleaning, such as oils, solvents, and water-based fluids. Tanks are unlined with a small opening to easily pour in your fluid. These tanks come with an analog gauge 100 psi or 15 psi regulator; an optional digital gauge is also available.

The second option is EFD's stainless steel 19L (5-gallon pail) tank. Designed to allow the easy drop-in of pre-filled 5-gallon pails, this tank is shipped with an analog gauge, 100 psi regulator.

Each fluid tank is shipped complete with a constant-bleed precision air regulator and gauge, air hose with shutoff valve, and fluid feed tubing.

19L Fluid Reservoirs

Standard 19L Tanks

7020039 19.0 Liter Tank
19.0 liter stainless steel tank with 7.0 bar (100 psi) regulator.

7020040 19.0 Liter Tank
19.0 liter stainless steel tank with 1.0 bar (15 psi) regulator.

5-Gallon Pail Tank

7362453 19.0 Liter (5-gallon pail) Tank
19.0 liter stainless steel tank with 7.0 bar (100 psi) analog regulator, accepts pre-filled standard 5-gallon pails.

Float Switch

7020042 Float Switch for 19L Tanks
Float switch can be used to indicate low fluid levels in 19L tanks.

The Nordson EFD Fluid Pressure Booster is designed to help move thick materials from a tank or cartridge to an EFD precision valve by boosting dispense pressure up to 100 bar (1450 psi).

The Fluid Pressure Booster increases the pressure applied to dispensed materials, facilitating the supply of high-viscosity greases, adhesives, and silicones. Its modular design allows quick and easy cleaning of all fluid-carrying components, making it particularly suitable for the supply of adhesives and reactive materials.

Designed for micro-dispensing of thick materials, Fluid Pressure Boosters work with EFD's PICO *Pulse* valve systems, Liquidyn valves, and xQR41 needle valves.

Features and Benefits

- Modular design
- Transmission ratio of 1:13 allows you to achieve a material pressure of up to 1450 psi (100 bar)
- Only a 24V power supply is required for the operation of this standalone device

Fluid Pressure Booster

7825243 Fluid Pressure Booster
Designed for micro-dispensing of thick materials.

Cartridge Retainer Systems with Regulators

Two styles of Cartridge Retainer Systems with Regulators are available — one uses disposable polyethylene liners in sizes of 2.5 fl oz (75 ml), 6.0 fl oz (180 ml), 12 fl oz (360 ml), 20 fl oz (600 ml), and 32 fl oz (960 ml). The second is a 1/10 gallon (300 ml) system for use with pre-filled caulking tubes.

Both systems include cap, cartridge, all necessary fittings, air tubing, regulator with gauge, and 1.5 m (5 ft) of 6 mm (0.24") OD polyethylene feed tubing.

Regulators supplied with cartridge reservoirs are precision, constant-bleed type to ensure consistent liquid pressurizing at all pressure settings.

Each reservoir includes a special tee fitting to connect both the reservoir and the controller to the EFD 5-micron filter/regulator (supplied with each ValveMate controller).

CARTRIDGE RETAINER SYSTEMS WITH REGULATORS

Part #	Size	Description
7012431	2.5 fl oz (75 ml)	Cartridge assembly with 1.0 bar (15 psi) regulator
7012432	2.5 fl oz (75 ml)	Cartridge assembly with 7.0 bar (100 psi) regulator
7012434	6 fl oz (180 ml)	Cartridge assembly with 1.0 bar (15 psi) regulator
7012435	6 fl oz (180 ml)	Cartridge assembly with 7.0 bar (100 psi) regulator
7012437	12 fl oz (360 ml)	Cartridge assembly with 1.0 bar (15 psi) regulator
7012438	12 fl oz (360 ml)	Cartridge assembly with 7.0 bar (100 psi) regulator
7013889	20 fl oz (600 ml)	Cartridge assembly with 1.0 bar (15 psi) regulator
7012440	20 fl oz (600 ml)	Cartridge assembly with 7.0 bar (100 psi) regulator
7014100	32 fl oz (960 ml)	Cartridge assembly with 7.0 bar (100 psi) regulator

1/10 GALLON CARTRIDGE ASSEMBLY WITH REGULATOR

Part #	Size	Description
7018646	1/10 gal (300 ml)	Cartridge assembly for caulking tubes with 7.0 bar (100 psi) regulator

Automated Dispensing Systems

Nordson EFD's range of automated dispensing systems are specifically designed and configured for precise fluid dispensing using EFD syringe barrel and valve systems.

Specialized DispenseMotion™ software and fully integrated vision and laser height sensing capabilities make EFD automated systems quick to set up and easy to program. True three-dimensional motion control allows easy programming of dots, lines, circles, arcs, compound arcs, and complex patterns on different planes.

Closed-loop encoding, along with the smart vision CCD camera and laser height sensing, allows the systems to automatically adjust a dispensing program to compensate for both surface height changes and variations in product orientation.

The systems set up quickly and are easy to run, providing more time for other projects while increasing product yield.

Features and Benefits

- Produces more parts and reduces process time
- Improves product quality from more precise, accurate dispensing
- Quicker learning curve for operators — programming is easier, more visual
- Faster startup to introduce automation, with less production downtime
- Fully integrated positioning and dispensing functions

Nordson EFD

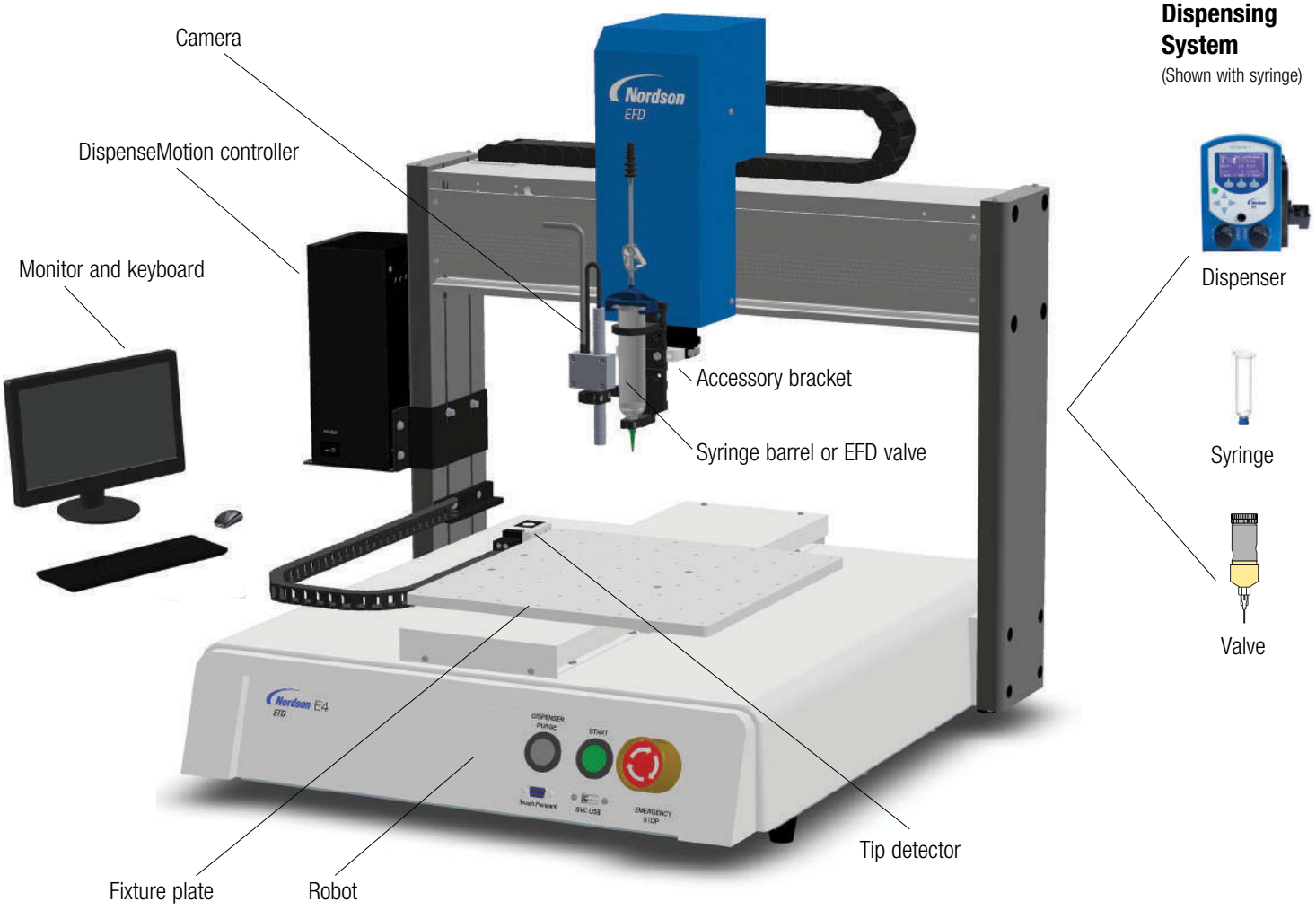
Automated Dispensing System Selection Guide

AUTOMATED DISPENSING SYSTEMS

System	 PROPlus / PRO	 EV	 E	 RV	 R	 GV
# of axes	3 axes	3 axes	3 axes	4 axes	4 axes	3 axes
Programming method	DispenseMotion software	DispenseMotion software	Teach Pendant TeachMotion software	DispenseMotion software	Teach Pendant TeachMotion software	DispenseMotion software
Vision	CCD smart camera	Pencil camera	—	CCD smart camera (fixed or rotating mount)	—	G8V CCD smart camera G4V Pencil camera
OptiSure™ Automated Optical Inspection (AOI)	AOI software (optional) Confocal Laser (optional)	AOI software (optional)	N/A	AOI software (optional)	N/A	AOI software (optional)
Height detection	Laser (optional)	Mechanical (optional)	Mechanical (optional)	—	—	Mechanical (optional)
Tip detection	Tip detector (included)	Tip detector (optional)	Tip aligner (optional)	Tip detector or Tip aligner (optional)	Tip aligner (optional)	Tip detector (optional)
Closed loop encoding	Included	—	—	—	—	G4V (N/A) G8V (Included)
Maximum working area (X / Y / Z)	**PRO3 / PRO3Plus** 250 / 250 / 100 mm (10 / 10 / 4") **PRO3L / PRO3PlusL** 250 / 220 / 100 mm (10 / 9 / 4") **PRO4 / PRO4Plus** 350 / 350 / 100 mm (14 / 14 / 4") **PRO4L** 300 / 400 / 100 mm (12 / 16 / 4") **PRO4PlusL** 350 / 320 / 100 mm (14 / 13 / 4")	**E2V** 150 / 200 / 50 mm (6 / 8 / 2") **E3V** 250 / 300 / 100 mm (10 / 12 / 4") **E4V** 350 / 400 / 100 mm (14 / 16 / 4") **E5V** 450 / 500 / 150 mm (18 / 20 / 6") **E6V** 570 / 500 / 150 mm (22 / 20 / 6")	**E2** 200 / 200 / 50 mm (8 / 8 / 2") **E3** 300 / 300 / 100 mm (12 / 12 / 4") **E4** 400 / 400 / 100 mm (16 / 16 / 4") **E5** 500 / 500 / 150 mm (20 / 20 / 6") **E6** 620 / 500 / 150 mm (24 / 20 / 6")	**R3V** 300 / 300 / 150 mm (12 / 12 / 6") **R4V** 400 / 400 / 150 mm (16 / 16 / 6") **R6V** 620 / 500 / 150 mm (24 / 20 / 6") All: ± 999°	**R3** 300 / 300 / 150 mm (11.8 / 11.8 / 5.9") **R4** 400 / 400 / 150 mm (15.7 / 15.7 / 5.9") **R6** 620 / 500 / 150 mm (24 / 19.7 / 5.9") All: ± 999°	**G4V** 400 / 400 / 100 mm (16 / 16 / 4") **G8V** 800 / 800 / 100 mm (31 / 31 / 4")

www.nordsonefd.com/Robot

Automated Dispensing System – System Setup



Dispensing System
(Shown with syringe)

Dispenser

Syringe

Valve

Accessories


Tip detector


Tip aligner


Mechanical height sensor


Laser height sensor


OptiSure™ AOI software


Confocal laser

PROPlus / PRO Series Automated Dispensing System

The PROPlus / PRO Series is EFD's most advanced automated dispensing system. Along with specialized DispenseMotion software and fully integrated vision and laser height sensing capabilities, the system includes closed-loop encoding to deliver best-in-class dispensing performance and exceptional process control.

Verify fluid deposit placement and accuracy with the OptiSure automated optical inspection (AOI) software add-on. When paired with the OptiSure confocal laser, the AOI system measures the height of fluid deposits in addition to width and diameter, providing 3D dispense verification.

Integrated vision and laser make the PROPlus / PRO Series a complete automated solution.

Features and Benefits

- Dual linear guide, advanced servomotor, and ball screw actuation (PROPlus only)
- Best-in-class repeatability and speed (PROPlus ±0.003 mm; PRO ±0.004 mm)
- Simplified setup and programming with EFD's advanced vision-guided DispenseMotion software
- On-screen preview of the dispensing path facilitates programming
- Constant closed-loop feedback with encoding, smart vision camera, and precision laser non-contact sensing
- Improved product quality; more precise, accurate dispensing
- Quicker learning curve for operators; programming is easier, more visual
- Produces more parts and reduces process time

	SPECIFICATIONS			
Items/Models	PRO3	PRO4	PROPlus3	PROPlus4
Part #	7362911	7360860	7363536	7363539
Part # Europe*	7363829	7361353	7363650	7363653
Laser B (Optional)	← 7361240 (optical height sensing of most surfaces) →			
Laser C (Optional)	← 7364992 (optical detection of deposit measurement regardless of fluid transparency or reflective substrate) →			
Number of Axes	← 3 →			
Maximum Working Area (X / Y / Z)	250 / 250 / 100 mm (10 / 10 / 4") / 250 / 220 / 100 mm (10 / 9 / 4")	350 / 350 / 100 mm (14 / 14 / 4") / 350 / 320 / 100 mm (14 / 13 / 4")	250 / 250 / 100 mm (10 / 10 / 4") / 250 / 220 / 100 mm (10 / 9 / 4")	350 / 350 / 100 mm (14 / 14 / 4") / 350 / 320 / 100 mm (14 / 13 / 4")
Workpiece Payload	10.0 kg (22.0 lb)	10.0 kg (22.0 lb)	25.0 kg (55.1 lb)	25.0 kg (55.1 lb)
Tool Payload	3.5 kg (7.7 lb) / 1.5 kg (3.3 lb)	3.5 kg (7.7 lb) / 1.5 kg (3.3 lb)	6.0 kg (13.2 lb)	6.0 kg (13.2 lb)
Weight	45.0 kg (99.2 lb) / 46.5 kg (102.5 lb)	57.5 kg (126.8 lb) / 59 kg (130.1 lb)	50.5 kg (111.3 lb) / 52 kg (114.6 lb)	63.5 kg (140.0 lb) / 65 kg (143.3 lb)
Dimensions	720W x 690H x 590D mm (28W x 27H x 22D")	820W x 690H x 690D mm (32W x 27H x 27D")	720W x 690H x 590D mm (28W x 27H x 22D")	820W x 690H x 690D mm (32W x 27H x 27D")
Maximum Speed (X / Y / Z)	500 / 250 mm/s (20 / 10"/s)	500 / 250 mm/s (20 / 10"/s)	800 / 250 mm/s (31 / 10"/s)	800 / 250 mm/s (31 / 10"/s)
Drive System	5-phase micro stepping motor	5-phase micro stepping motor	Servomotor	Servomotor
Memory Capacity	← PC storage →			
General Purpose I/O	← 8 inputs / 8 outputs (16 / 16 optional) →			
Input AC (to power supply)	← 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 380 W →			
Repeatability**	±0.004 mm / axis	±0.004 mm / axis	±0.003 mm / axis	±0.003 mm / axis
Tip Detection System	← Included →			
Vision	← CCD smart camera →			
DispenseMotion Software	← Included →			
Laser Height Detection	← Optional →			
Approvals / Warranty	CE, UKCA, RoHS, WEEE, China RoHS / 1 year, limited			

*Complies with European safety regulations. **Repeatability results may vary depending on method of measurement.

www.nordsonefd.com/PROVideo

EV Series Automated Dispensing Systems

The EV Series offers simple vision for precise fluid application in an automated solution. Along with specialized DispenseMotion software and a pencil camera, the system is quick to set up and easy to program. Platforms range from 150 x 200 mm to 570 x 500 mm, making them an ideal solution for batching or critical dispensing applications.

Verify fluid deposit placement and accuracy with the OptiSure automated optical inspection (AOI) software add-on.

Features and Benefits

- Simple camera and dispensing software make setup and programming easy
- On screen preview of the dispensing path facilitates programming
- Streamlined file import and conversion
- True three-dimensional motion control
- Wide range of work envelopes
- Faster cycle and batch times
- Easy integration into any manufacturing operation

EV Series pencil camera vision makes programming patterns easier.

	SPECIFICATIONS				
Item/Model	E2V	E3V	E4V	E5V	E6V
Part #	7360856	7360857	7360858	7360859	7362103
Part # Europe*	7361349	7361350	7361351	7361352	7362104
Number of Axes	3				
Maximum Working Area (X / Y / Z)	150 / 200 / 50 mm (6 / 8 / 2")	250 / 300 / 100 mm (10 / 12 / 4")	350 / 400 / 100 mm (14 / 16 / 4")	450 / 500 / 150 mm (18 / 20 / 6")	570 / 500 / 150 mm (22 / 20 / 6")
Workpiece Payload	10.0 kg (22.0 lb)	10.0 kg (22.0 lb)	10.0 kg (22.0 lb)	10.0 kg (22.0 lb)	10.0 kg (22.0 lb)
Tool Payload	1.5 kg (3.3 lb)	3.0 kg (6.6 lb)	3.0 kg (6.6 lb)	3.0 kg (6.6 lb)	3.0 kg (6.6 lb)
Weight	25.5 kg (56.2 lb)	47.5 kg (104.7 lb)	52.5 kg (115.7 lb)	55.0 kg (121.3 lb)	58.0 kg (127.9 lb)
Dimensions	495W x 556.5H x 410D mm (19W x 22H x 16D")	596W x 644H x 543D mm (23W x 25H x 21D")	696W x 644H x 638D mm (27W x 25H x 25D")	796W x 814H x 718D mm (31W x 32H x 28D")	913W x 812H x 718D mm (36W x 32H x 28D")
Maximum Speed	500 / 250 mm/s (20 / 10"/s)	800 / 320 mm/s (31 / 13"/s)	800 / 320 mm/s (31 / 13"/s)	800 / 320 mm/s (31 / 13"/s)	800 / 320 mm/s (31 / 13"/s)
Drive System	3-phase micro stepping motor				
Memory Capacity	PC storage				
General Purpose I/O	8 inputs / 8 outputs (16 / 16 optional)				
Input AC (to power supply)	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 350 W	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 350 W	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 350 W	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 350 W	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 350 W
Repeatability**	±0.008 mm / axis				
Vision	Pencil camera				
DispenseMotion Software	Included				
Tip Detection	Tip detector (optional)				
Height Detection	Mechanical (optional)				
Approvals / Warranty	CE, UKCA, RoHS, WEEE, China RoHS / 1 year, limited				

*Complies with European safety regulations. **Repeatability results may vary depending on method of measurement.

www.nordsonefd.com/EVSeriesVideo

E Series Automated Dispensing Systems

The E Series offers precise fluid application in an automated solution. Along with specialized TeachMotion™ software, the E Series relies on an easy-to-use Teach Pendant for programming. Platforms range from 200 x 200 mm to 620 x 500 mm, making them ideal for batching or critical dispensing.

Features and Benefits

- Simplified setup and programming via Teach Pendant or file importation
- True, three-dimensional motion control
- Rugged, reliable construction and small footprint
- Wide range of work envelopes
- Faster cycle and batch times
- Easy integration into any manufacturing operation

E Series makes automation easy with precise performance and fast programming.

	SPECIFICATIONS				
Item/Model	E2	E3	E4	E5	E6
Part #	7360852	7360853	7360854	7360855	7362101
Part # Europe*	7361345	7361346	7361347	7361348	7362102
Number of Axes	3				
Maximum Working Area (X / Y / Z)	200 / 200 / 50 mm (8 / 8 / 2")	300 / 300 / 100 mm (12 / 12 / 4")	400 / 400 / 100 mm (16 / 16 / 4")	500 / 500 / 150 mm (20 / 20 / 6")	620 / 500 / 150 mm (24 / 20 / 6")
Workpiece Payload	10.0 kg (22.0 lb)	10.0 kg (22.0 lb)	10.0 kg (22.0 lb)	10.0 kg (22.0 lb)	10.0 kg (22.0 lb)
Tool Payload	3.0 kg (6.6 lb)	5.0 kg (11.0 lb)	5.0 kg (11.0 lb)	5.0 kg (11.0 lb)	5.0 kg (11.0 lb)
Weight	22.0 kg (48.5 lb)	39.5 kg (87.1 lb)	44.5 kg (98.1 lb)	47.0 kg (103.6 lb)	50.0 kg (110.2 lb)
Dimensions	380W x 556.5H x 410D mm (15W x 22H x 16D")	490W x 644H x 519D mm (19W x 25H x 20D")	590W x 644H x 617D mm (23W x 25H x 24D")	690W x 814H x 718D mm (27W x 32H x 28D")	808W x 812H x 718D mm (32W x 32H x 28D")
Maximum Speed	500 / 250 mm/s (20 / 10"/s)	800 / 320 mm/s (31 / 13"/s)	800 / 320 mm/s (31 / 13"/s)	500 / 320 mm/s (20 / 13"/s)	500 / 320 mm/s (20 / 13"/s)
Drive System	3-phase micro stepping motor				
Memory Capacity	1–99 programs, 1–9,999 points per program				
General Purpose I/O	8 inputs / 8 outputs				
Input AC (to power supply)	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 320 W	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 320 W	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 320 W	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 320 W	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 320 W
Repeatability**	±0.008 mm / axis				
Teach Pendant	Included				
Tip Detection	Tip detector (optional)				
Height Detection	Mechanical (optional)				
Approvals / Warranty	CE, UKCA, RoHS, WEEE, China RoHS / 1 year, limited				

*Complies with European safety regulations. **Repeatability results may vary depending on method of measurement.

Download CAD Models:
www.nordsonefd.com/CAD

www.nordsonefd.com/ESeriesVideo

RV Series Automated Dispensing Systems

The 4-axis RV Series offers easy setup and programming with specialized vision-guided DispenseMotion software and an integrated CCD smart vision camera to deliver market-leading repeatability and accuracy in fluid placement. Simultaneous X and Y movement during R rotation provides true point of programming for dispensing at any angle along the 360° rotation plane.

In addition to its standard fixed-mount CCD camera, the RV Series has an optional rotating-mount camera that mounts onto the R-axis of the robot. This allows multiple substrate viewing orientations at 0° or 90° angles. It also allows multi-focus on multiple substrate heights.

Verify fluid deposit placement and accuracy with the OptiSure automated optical inspection (AOI) software add-on.

Features and Benefits

- Simplified setup and programming with EFD's advanced vision-guided DispenseMotion Software
- On-screen preview of the dispensing path facilitates programming
- Market-leading dimensional positioning accuracy and deposit placement repeatability with powerful CCD camera
- Faster cycle and batch times with best-in-class ±8 µm repeatability
- 360° rotation for ID and OD dispensing

RV Series CCD smart vision camera verifies workpiece presence and orientation.

Item/Model	SPECIFICATIONS R3V	R4V	R6V
Part # (w/ fixed-mount camera)	7363556	7363557	7363558
Part # Europe* (w/ fixed-mount camera)	7363572	7363573	7363574
Part # (w/ rotating-mount camera)	7363673 (base robot, no vision)	7363675 (base robot, no vision)	7363677 (base robot, no vision)
	← 7364066 (vision kit) →		
Part # Europe* (w/ rotating-mount camera)	7363674 (base robot, no vision)	7363676 (base robot, no vision)	7363678 (base robot, no vision)
	← 7364067 (vision kit) / 7727235 (keyboard and mouse) →		
Number of Axes	← 4 →		
Maximum Working Area (X / Y / Z / R°)	300 / 300 / 150 mm / ±999° (11.8 / 11.8 / 5.9" / ±999°)	400 / 400 / 150 mm / ±999° (15.7 / 15.7 / 5.9" / ±999°)	620 x 500 x 150 mm / ±999° (24 / 19.7 / 5.9" / ±999°)
Workpiece Payload	← 10.0 kg (22.0 lb) →		
Tool Payload	← 3.0 kg (6.6 lb) →		
Weight	50.0 kg (110 lb)	55.0 kg (121 lb)	61.0 kg (135 lb)
Dimensions	645W x 914H x 552D mm (25W x 36H x 22D")	745W x 914H x 652D mm (29W x 36H x 26D")	965W x 914H x 752D mm (38W x 36H x 30D")
Maximum Speed (XY / Z)	← 800 / 320 mm/s (31 / 13"/s) →		
Maximum Speed (R)	← 720 deg/s →		
Drive System	← 3-phase micro stepping motor →		
Memory Capacity	← PC storage →		
General Purpose I/O	← 8 inputs / 8 outputs (16 / 16 optional) →		
Input AC (to power supply)	← 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 320W →		
Repeatability**	← ±0.008 mm / axis (XY / Z) / ±0.005 (R°) →		
Vision	← CCD smart camera (fixed or rotating mount) →		
Tip Detection	← Optional →		
DispenseMotion Software	← Included →		
Approvals / Warranty	CE, UKCA, RoHS, WEEE, China RoHS / 1 year, limited		

*Complies with European safety regulations. **Repeatability results may vary depending on method of measurement.

www.nordsonefd.com/RVSeriesVideo

R Series Automated Dispensing Systems

The 4-axis R Series offers easy setup and programming with specialized TeachMotion Teach Pendant software designed to deliver market-leading repeatability and accuracy in fluid placement. Simultaneous X and Y movement during R rotation provides true point programming for dispensing at any angle along the 360° rotation plane.

Features and Benefits

- Built-in tip recalibration for easy tip change alignment
- Easy USB file upload and download
- 360° rotation for ID and OD dispensing
- Quicker setup and programming
- Faster cycle and batch times with best-in-class ±8 µm repeatability
- New manufacturing opportunities

R Series makes 4-axis dispensing automation easy.

	SPECIFICATIONS		
Item/Model	R3	R4	R6
Part #	7361912	7361914	7361916
Part # Europe*	7361913	7361915	7361917
Number of Axes	4		
Maximum Working Area (X / Y / Z / R°)	300 / 300 / 150 mm / ±999° (12 / 12 / 6" / ±999°)	400 / 400 / 150 mm / ±999° (16 / 16 / 6" / ±999°)	620 x 500 x 150 mm / ±999° (24 / 20 / 6" / ±999°)
Workpiece Payload	10.0 kg (22.0 lb)		
Tool Payload	3.0 kg (6.6 lb)		
Weight	41.0 kg (90.4 lb)	46.0 kg (101.4 lb)	52.0 kg (114.7 lb)
Dimensions	490w x 901H x 519D mm (19w x 35H x 20D")	590w x 901H x 619D mm (23w x 35H x 24D")	810w x 901H x 616D mm (32w x 35H x 24D")
Maximum Speed (XY / Z)	800 / 320 mm/s (31 / 13"/s)		
Maximum Speed (R°)	720 deg/s		
Drive System	3-phase micro stepping motor		
Memory Capacity	1–99 programs, 1–9,999 points per program		
General Purpose I/O	8 inputs / 8 outputs		
Input AC (to power supply)	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 320 W		
Repeatability**	±0.008 mm / axis (XY / Z) / ±0.005 (R°)		
Teach Pendant	Included		
Tip Detection	Tip aligner (optional)		
Approvals / Warranty	CE, UKCA, RoHS, WEEE, China RoHS / 1 year, limited		

*Complies with European safety regulations. **Repeatability results may vary depending on method of measurement.

Download CAD Models:
www.nordsonefd.com/CAD

www.nordsonefd.com/RSeriesVideo

GV Series Automated Dispensing System

Nordson EFD's vision-guided GV Series automated dispensing gantry systems deliver easy automation for precise fluid applications. Working envelopes range from 400 mm to 800 mm, making them an ideal solution for precise fluid dispensing onto substrates requiring large work envelopes while not sacrificing repeatability. The GV Series can work as a standalone system or as a key part of an automated solution and is easily integrated into rotary tables and conveyor-fed assembly lines.

Verify fluid deposit placement and accuracy with the OptiSure automated optical inspection (AOI) software add-on.

Features and Benefits

- Work envelopes as large as 800 mm
- Simplified setup and programming with EFD's advanced vision-guided DispenseMotion software
- Unlimited workpiece payload provides full range of dispensing application opportunities
- Ideal for conveyer-fed automation
- Seamless integration into any manufacturing operation

The GV Series automated dispensing system has an unlimited workpiece payload.

	SPECIFICATIONS	
Items/Models	G4V	G8V
Part # (100 mm post)	7363644	7363647
Part # (150 mm post)	7363645	7363648
Part # (250 mm post)	7363646	n/a
Number of Axes	3	
Maximum Working Area (X / Y / Z)	400 / 400 / 100 mm (16 / 16 / 4")	800 / 800 / 100 mm (31 / 31 / 4")
Tool Payload	3.0 kg (6.6 lb)	8.0 kg (17.6 lb)
Weight	63.5 kg (140.0 lb)	181.5 kg (400.1 lb)
Dimensions	833W x 382H x 730D mm (33W x 15H x 29D")	1,489W x 534H x 1,160D mm (59W x 21H x 46D")
Maximum Speed (XY / Z)	500 / 320 mm/s (20 / 13"/s)	800 / 320 mm/s (31 / 13"/s)
Drive System	5-phase micro-stepping motor	XY axis: Servo motor Z axis: 5-phase micro-stepping motor
Memory Capacity	PC storage	
General Purpose I/O	8 inputs / 8 outputs (16 / 16 optional)	
Input AC (to power supply)	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 420 W	220 VAC, ±10%, 50/60 Hz, 10 Amp maximum, 420 W
Repeatability*	±0.02 mm / axis	±0.1 mm / axis
Vision	Pencil camera	CCD smart camera
DispenseMotion Software	Included	
Tip Detection	Tip detector (optional)	
Height Detection	Mechanical (optional)	
Approvals / Warranty	CE, UKCA, RoHS, WEEE, China RoHS / 1 year, limited	

*Repeatability results may vary depending on method of measurement.

Download CAD Models:
www.nordsonefd.com/CAD

www.nordsonefd.com/GVSeriesVideo

Automated Dispensing Systems

Nordson EFD guarded safety enclosures integrate seamlessly with our complete line of automated dispensing systems. Featuring external dispensing controls, a safety light curtain, and an internal electrical control box and wireways for faster, safer setup, these CE-compliant enclosures also fully comply with EU Machinery Directive 2006/42/EC.

Features and Benefits

- Light curtain meets safety requirements while providing easy access to the dispensing system when necessary
- Complete control of the system from the outside of the enclosure, including Start, Emergency Stop, and Run/Teach
- Solid construction resists bumps and jolts to maintain dispensing accuracy
- High-quality enclosure protects operators from operational hazards
- Protects the dispensing system from environmental conditions
- Compliant with EU Machinery Directive 2006/42/EC, essential for all production requirements

Complete Guarded System

7362738 Small Safety Enclosure
Compatible robot models E2, E2V, E3, E3V, PRO3, PROPlus3.

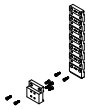
7362766 Small Safety Enclosure, Europe
Compatible robot models E2, E2V, E3, E3V, PRO3, PROPlus3.

7362739 Large Safety Enclosure
Compatible robot models E4, E4V, E5, E5V, E6, E6V, R3, R3V, R4, R4V, G4V, PRO4, PROPlus4.

7362767 Large Safety Enclosure, Europe
Compatible robot models E4, E4V, E5, E5V, E6, E6V, R3, R3V, R4, R4V, G4V, PRO4, PROPlus4.

"Automated tabletop dispensing has significantly increased productivity by removing the variability from our process. It has also reduced our rejects by up to 90%."
– Electrodynamics Inc.

MOUNTING BRACKETS

Bracket	Part #	Recommended Use	PROPlus / PRO	EV	E	RV	R	GV
	7362438	PROPlus / PRO Series base for all valve mounting brackets	✓	—	—	—	—	—
	7361668	R / RV Series base for all valve mounting brackets	—	—	—	✓	✓	—
	7360610	EFD syringe barrels, all sizes	✓	✓	✓	✓	✓	✓
	7361815	PICO *Pµlse*® valves	✓	✓	✓	✓	✓	✓
	7362177	Liquidyn® P-Jet and P-Dot Series valves	✓	✓	✓	✓	✓	✓
	7364423*	797PCP pump for one-component fluid applications	✓	✓	✓	—	—	✓
	7365000	Shutoff valve for 797PCP-2K pumps (pumps not included)	✓	E3V–E6V	E3–E6	—	—	✓
	7365933	Shutoff valve for Equalizer™	✓	✓	✓	—	—	✓
	7360613	Universal for valves with mounting holes (752, 725, 741, 736, 781, 787, and 782 Series)	✓	✓	✓	✓	✓	✓
	7361758	Universal for valves without mounting holes (702, 754, 794 Series)	✓	✓	✓	✓	✓	✓
	7361114	xQR41 Series valves	✓	✓	✓	✓	✓	✓
	7360609	EV Series pencil camera	—	✓	—	—	—	—
	7364040	Air and cable management bracket (replaces bracket P/N 7361670)	✓	✓	✓	✓	✓	✓

* To use this bracket on any PROPlus / PRO robot or a G8V robot, also order P/N 7364856.
** To mount a 797PCP on any PROPlus / PRO robot or on a G8V robot, use this bracket in tandem with the 797PCP / 797PCP-2K pump mounting bracket. This bracket is attached to the robot camera.

Automated Dispensing Accessories

CABLES

Cable	Part #	Description	PROPlus / PRO	EV	E	RV	R	GV
	7360551	Standard cable to connect dispenser and robot	✓	✓	✓	✓	✓	✓
	7363719	Cable kit for safety enclosures (includes monitor power cord, VGA monitor cable, and Y cable for robot I/O port)	✓	✓	✓	✓	✓	✓
	7360761	Single voltage initiate cable for one dispenser or controller	✓	✓	✓	✓	✓	✓
	7360554	Dual voltage initiate cable for up to two dispensers / controllers	✓	✓	✓	✓	✓	✓
	7360558	Dual-connector cable for one or two PICO *Toμch*™ Controllers	✓	✓	✓	✓	✓	✓
	7362373	Single-connector cable for one Liquidyn V200 Controller	✓	✓	✓	✓	✓	✓

VISION KITS

Vision Kit	Part #	Description	PROPlus / PRO	EV	E	RV	R	GV
	7360864	Vision kit for CCD camera with light box (includes camera, PC, monitor, keyboard, and mouse)	Included	✓	✓	—	—	G8V included G4V optional
	7361527	Vision kit for CCD camera with light box, Europe (includes camera, PC, and monitor) Note: Order keyboard and mouse separately.	Included	—	✓	—	—	G8V included G4V optional
	7360863	Vision kit for pencil camera (includes camera, PC, monitor, keyboard, and mouse)	—	Included	✓	—	—	G4V included
	7361528	Vision kit for pencil camera, Europe (includes camera, PC, and monitor) Note: Order keyboard and mouse separately.	—	Included	✓	—	—	G4V included
	7363461	Vision kit for fixed-mount camera (includes camera, PC, monitor, keyboard, and mouse)	—	—	—	Included	✓	—
	7363672	Vision kit for fixed-mount camera, Europe (includes camera, PC, and monitor) Note: Order keyboard and mouse separately.	—	—	—	Included	✓	—
	7364066	Vision kit for rotating-mount camera (includes camera, PC, monitor, keyboard, and mouse)	—	—	—	Included	✓	—
	7364067	Vision kit for rotating-mount camera, Europe (includes camera, PC, and monitor) Note: Order keyboard and mouse separately.	—	—	—	Included	✓	—
	7360867	Lens accessory kit for high-precision CCD cameras (allows different focal lengths and depths of field; compatible with CCD upgrade kits 7360864 and 7361527)	✓	—	—	—	—	G8V optional

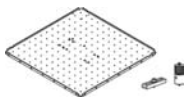
✓ = Compatible

Automated Dispensing Accessories

DISPENSE VERIFICATION

Kit	Part #	Description	PROPlus / PRO	EV	E	RV	R	GV
	7365229	OptiSure™ Automated Optical Inspection (AOI) software add-on	✓	✓	—	✓	—	✓
	7364992	OptiSure confocal laser kit	✓	—	—	—	—	—

FIXTURE PLATES

Fixture Plate	Part #	Description	PROPlus / PRO*	EV	E	RV	R	GV
	7028276	200 mm fixture plate	—	✓	✓	—	—	—
	7028277	300 mm fixture plate	—	✓	✓	—	—	—
	7028278	400 mm fixture plate	PROPlus4 / PRO4 optional	✓	✓	—	—	—
	7028279	500 mm fixture plate	—	✓	✓	—	—	—
	7362547	300 mm fixture plate	—	—	—	✓	✓	—
	7362548	400 mm fixture plate	—	—	—	✓	✓	—
	7362549	600 mm fixture plate	—	—	—	✓	✓	—

All plates include four edge levelers and four leveling mounts.
*Fixture plates shipped pre-installed on PROPlus/PRO Series models; replacement not required.

HEIGHT DETECTION KITS

Kit	Part #	Description	PROPlus / PRO	EV	E	RV	R	GV
	7361240	Laser B for optical height sensing of most surfaces	✓	—	—	—	—	—
	7364992	Confocal Laser C accessory kit for optical detection of deposit measurements regardless of the transparency of the fluid or the reflectivity of the deposit substrate	✓	—	—	—	—	—
	7361667	Touch-type mechanical height sensor	—	✓	✓	—	—	✓

TIP DETECTION / ALIGNMENT KITS

Kit	Part #	Description	PROPlus / PRO	EV	E	RV	R	GV
	7361535	Tip detector for touch sensing of the tip-to-workpiece gap (tip must contact the sensor)	✓	—	—	—	—	—
	7360893	Tip detector for touch sensing of the tip-to-workpiece gap (tip must contact the sensor)	—	✓	—	✓	—	—
	7363925	Tip detector for touch sensing of the tip-to workpiece gap (tip must contact the sensor)	—	—	—	—	—	G4V only
	7363976	Tip detector for touch sensing of the tip-to workpiece gap (tip must contact the sensor)	—	—	—	—	—	G8V only
	7360892	Tip aligner for optical sensing of the tip-to-workpiece gap (no tip contact required)	—	—	✓	—	—	—
	7362353	Tip aligner for optical sensing of the tip-to-workpiece gap (no tip contact required)	—	—	—	✓	✓	—
	7363940	Allows the tip detector / aligner to be mounted in the center of the robot fixture plate	—	E3V–E6V	E3–E6	✓	✓	—

OTHER ACCESSORIES

Accessory	Part #	Description	PROPlus / PRO	EV	E	RV	R	GV
	7363285	Start / stop accessory box and I/O checker, standard	✓	✓	✓	✓	✓	—
	7360865	Start / stop accessory box, European and all GV	✓	✓	✓	✓	✓	✓
	7360866	Input / output expansion, 8 inputs / 8 outputs	✓	✓	✓	✓	✓	✓

Solder Solutions

Paste / Flux / Thermal Compound

Nordson EFD is a recognized leader in developing, manufacturing, and distributing non-clogging solder pastes for dispensing applications, as well as high-quality solder pastes for SMT print applications and flux pastes for repair and rework processes. We named our solder products SolderPlus®, PrintPlus®, and FluxPlus™ because we offer more than superior solder pastes for dispense and print applications — we also provide award-winning, worldwide support to help our customers resolve their soldering challenges.

Quality is key. Nordson EFD solder products are manufactured and filled in our ISO 9001:2015 operations. The solder and flux pastes are packaged in our own high-quality syringe barrels and cartridges to ensure consistent solder deposits and seamless integration with our electropneumatic dispensers, dispense valves, and dispensing robots.

Our outstanding customer service has been recognized numerous times with Circuits Assembly's prestigious Service Excellence Award. Our focus on innovative solutions has also been acknowledged multiple times with honors like the SMT Vision Award. We also won the "International Solar Technology Cell Award — Best Technology for Module Assembly" in recognition of our role as a key supplier in the photovoltaics market.

We invite you to experience the SolderPlus, PrintPlus, and FluxPlus difference for yourself by contacting our experienced solder specialists, who will be happy to assist you in selecting the best products for optimizing your soldering process.

SMTA MEMBER

IPC Member

Nordson EFD

Solder Products

SolderPlus Dispensing Paste

SolderPlus dispense pastes are used where solder joints are needed but printing is not possible, and solder wire is neither practical nor efficient. SolderPlus pastes are specifically formulated for dispensing applications — by EFD, a global leader in dispensing solutions. When paired with our electro-pneumatic dispensers, dispense valves, and robots, we can provide a complete solder paste dispensing solution.

Features and Benefits

- Consistent deposit sizes
- No missed deposits
- Clog-free, top-to-bottom dispensing of the entire barrel
- Packaged in EFD's high quality barrels for best dispensing performance

PrintPlus Print Paste

EFD's PrintPlus solder pastes are formulated for application on printed circuit boards through stencils. The dependable performance and wide process windows helps reduce manufacturing costs by increasing first-pass yields and reducing defects, rework, and rejects. PrintPlus solder pastes are available in a wide range of lead-free and leaded alloys and particle sizes, as well as many flux formulations, including no clean, RMA, and water soluble with halogen- / halide-free options.

Features and Benefits

- Superior batch-to-batch consistency
- Bright, smooth, and shiny fillets
- Consistent print quality with good print definition
- Long stencil life

FluxPlus Dispensing Paste

EFD's tacky FluxPlus paste can be applied exactly where it is needed, and will remain in position without contaminating nearby areas. FluxPlus is available in a dispense version for repairs, and a stencil print version for reballing BGAs, where its red color facilitates confirmation that flux was applied correctly.

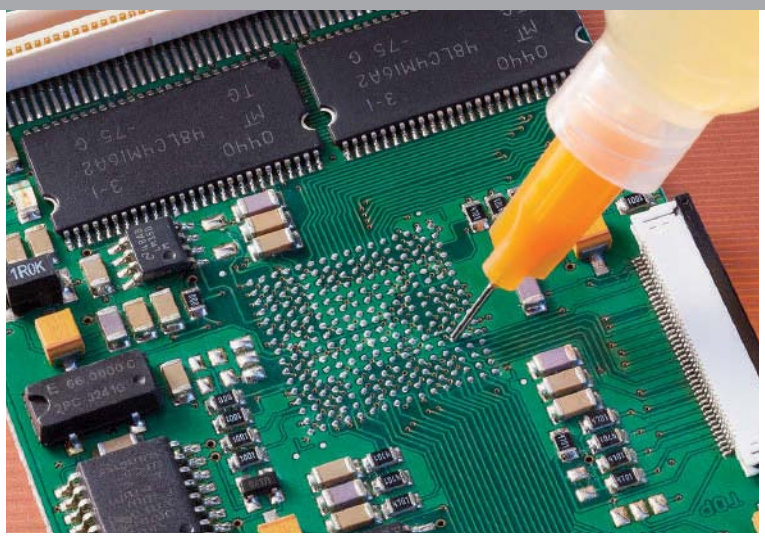
Features and Benefits

- High activity
- Easy to dispense
- Available in no clean, RMA, and water soluble

"Here's what I like about your service. First, SolderPlus is great and worry-free. Second, you are all extremely service-oriented, and finally, you meet all your commitments."

– Welch Allyn

www.nordsonefd.com/SolderVideo



There are many possible options when formulating a solder paste. EFD's general purpose solder pastes will meet the requirements of most applications.

For special requirements, EFD offers a wide range of specialized formulations. To find out which solder paste is the best solution for your application, please contact your Nordson EFD solder sales specialist for a free consultation.

Paste Features

Halide-Free We offer a range of halide-free solder pastes that meet environmental trends and regulations. Halides such as Chloride, Bromide, Fluoride or Iodide are used in some flux activators to assist in oxide removal.

Rapid Reflow Our rapid reflow solder pastes will not spatter when heated and melted as quickly as 0.25 seconds by solder iron, induction, laser, hot bar or other rapid reflow devices.

Pin Transfer or Dipping Solder paste that is applied by dipping a component or pin into the paste. For applications that do not lend themselves to printing or dispensing, such as pin arrays or manufacture of LEDs.

Low Residue The quantity of flux residue left after reflow is less than with normal solder pastes. Either there is less flux to begin with, or a larger percentage evaporates as part of the reflow process.

Difficult-to-Solder Surfaces Solder paste for difficult-to-wet metals such as Alloy42 lead finishes and highly oxidized surfaces of aged components and boards.

Gap Filling and/or Vertical Surfaces The flux is designed to hold the alloy in place until liquidus is reached. These formulas are suited to bridging gaps, filling holes, and soldering joints on vertical surfaces.

Solder Formulations

Flux Choices:

No Clean (NC)
NC flux has low activity and is suited to easily solderable surfaces. NC residue is clear, hard, non-corrosive, nonconductive, and designed to be left on your assembly. Residue may be removed with an appropriate solvent.

Rosin Mildly Activated (RMA)
Most RMA flux is fairly low in activity and best suited to easily solderable surfaces. RMA flux residue is clear, soft, non-corrosive, and non-conductive. Cleaning is optional. Residue may be removed with an appropriate solvent.

Rosin Activated (RA)
RA flux has higher activity than RMA for moderately oxidized surfaces. RA flux residue is corrosive and should be removed as soon as possible after reflow to prevent damage to your assembly.

Water Soluble (WS)
WS flux comes in a wide range of activity levels for soldering to even the most difficult surfaces. WS flux residue is corrosive and should be removed as soon as possible after reflow to avoid damage to your assembly.

LEAD-FREE ALLOY CHART

Alloy:	Solidus (°C)	Liquidus (°C)
Sn42 Bi57 Ag1.0	137	139
Sn42 Bi58	138E*	
Sn96.5 Ag3.0 Cu0.5	217	219
Sn96.3 Ag3.7	221E*	
Sn95 Ag5	221	245
Sn100	232MP**	
Sn99.3 Cu0.7	227E*	
Sn95 Sb5	232	240
Sn89 Sb10.5 Cu0.5	242	262
Sn90 Sb10	243	257

*Eutectic - Solidus and Liquidus are equal
** MP - Melting point

ALLOY CHART

Alloy:	Solidus (°C)	Liquidus (°C)
Sn43 Pb43 Bi14	144	163
Sn62 Pb36 Ag2	179	189
Sn63 Pb37	183E*	
Sn60 Pb40	183	191
Sn10 Pb88 Ag2	268	290
Sn10 Pb90	275	302
Sn5 Pb92.5 Ag2.5	287	296
Sn5 Pb95	308	312

POWDER SIZE CHART

Powder Type	Powder Size (micron)	Gullwing Lead Pitch (mm / in)	Square/Circle Aperture (mm / in)	Dispense Dot Dia. (mm / in)
II	45–75 µ	0.65 / 0.025	0.65 / 0.025	0.80 / 0.030
III	25–45 µ	0.50 / 0.020	0.50 / 0.020	0.50 / 0.020
IV	20–38 µ	0.30 / 0.012	0.30 / 0.012	0.30 / 0.012
V	15–25 µ	0.20 / 0.008	0.15 / 0.006	0.25 / 0.010
VI	5–15 µ	0.10 / 0.004	0.05 / 0.002	0.15 / 0.006

Thermal Compounds

Non-silicone thermal compounds are used in a wide range of electronic and electromechanical applications because they are resistant to thermal cycling degredation. Thermal compounds are formulated to provide excellent heat transfer. They are non-hazardous, and are RoHS and REACH compliant (lead-free). Their long shelf-life stability ensures that they will not dry, harden, or melt in normal use.

For challenging applications, thermal compounds are available with specialty features.

Choosing the best thermal compound requires some understanding of the mechanics of heat transfer and how the thickness of the thermal compound layer, the bond line thickness, influences product choice.

www.nordsonefd.com/TIM

	SPECIFICATIONS						
Formula	52022	52054	53054	52055*	52050	52160	53053
Specific Gravity at 25° C	2.7	3.0	3.0	2.8	2.6	2.6	2.8
Bleed: 24 Hrs., % Weight	0.1	0.0	0.01	0.0	0.01	0.3	0.3
Evaporation: 150C, 24 Hrs., %Weight	0.15	<2.0	<2.0	1.0	0.6	0.5	0.5
Thermal Conductivity: W/m-K	0.92	1.3	1.6	1.3	3.8	2	3.5
Dielectric Strength: V/mil	305	265	265	265	351	n/a	318
Dielectric Constant: 25° C, 1000Hz	4.5	5.02	5.02	5.02	4.92	n/a	5
Dissipation Factor: 25° C, 1000Hz	0.0029	0.0022	0.0022	0.0022	0.0032	n/a	0.0027
Volume Resistivity: Ohm-cm	1.65x10^14	2.0x10^15	2.0x10^15	2.0x10^15	1.0x10^13	over current	2.15x10^15
Operating Temperature: ° C	-40 to 200	-40 to 180	-40 to 180	0 to 180	-40 to 200	-40 to 200	-40 to 200
Flow Rate: g/min	4 to 7	8 to 9	5 to 6	4.5 to 6.5	1 to 3	3 to 8	7 to 9
Minimum Bond Line: mm	0.0381	0.0127	0.0127	0.0127	0.0508	0.0254	0.1270
Viscosity: 25° C kCps	460	470	510	620	350	230	1000
Viscosity: 50° C kCps	400	410	470	550	60	170	400
Appearance	Smooth, off-white paste	Smooth white paste	Smooth white paste	Smooth white paste	Dark gray paste	Smooth, gray paste	Off white paste
Shelf Life	1 year	1 year	1 year	1 year	1 year	1 year	1 year

*Water cleanable for easy clean up

Two-Component Dispensing Systems

Cartridges / 2K Dispensers / Mixers / Meter Mix Valves

Leading the Way in 2K

Nordson EFD's 2K product line provides static mixers, cartridge systems, and meter mix valves for reactive two-component (2K) adhesives & sealants such as epoxies, urethanes, silicones, and acrylics.

Mixing Solutions

- Two mixer geometries: Spiral and Square
- Complete line of plastic and metal mixers for low- and high-pressure applications
- Two-component cartridge systems from 1.0 to 1500mL capacities
- Designed and manufactured in the USA and ISO 9001:2015 certified
- Competitive pricing, high quality, fast delivery, and superior customer service

Custom Cartridges

Nordson EFD can mold cartridges in custom colors to your specifications. Simply provide us with a sample of the color or PMS number. Minimum order quantity required. Contact us for details.

Custom Mixers

Nordson EFD has the capability to produce custom mixers for specific materials and applications. Many times we are able to incorporate standard components into custom mixers, which make these an especially cost-effective option.

Nordson EFD

Side x Side Cartridge Systems

Open End Outlet

Closed End Outlet

Nordson EFD offers a comprehensive selection of high-quality, competitively-priced Side x Side cartridges for packaging and dispensing two-component materials used in automotive, construction, industrial, medical, and dental applications.

Features and Benefits

- Eliminates mess and waste
- Reduces exposure to hazardous resins
- Ensures accurate proportioning and mixing

Cartridge System Outlet Options

Select from two types of Side x Side cartridge outlets:

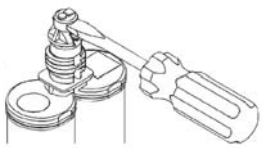
Open End Outlet

- Pre-assembled with traditional nose plugs and retaining nuts
- Many can be molded in polypropylene (PP) or nylon
- See specific cartridge descriptions or contact EFD for material options

Hermetically-sealed Closed End Outlet

- Features a patented “pry-off” closure
- Molded in one operation
- Cost-effective alternative to open end cartridges

PRY-OFF CAP INSTRUCTIONS



- Insert flat head of screwdriver into slot and pry upward
- Cap can be re-inserted to seal a partially used cartridge. To avoid cross contamination, match up the circles and squares on the cap and top of cartridge body
- For 50mL cartridges, the cap can be easily snapped off with your thumb and forefinger in the same upward motion

Continued next page

“Innovation truly drives the success of the adhesives and sealants industry, and we created the ASI Readers’ Choice Awards to celebrate all of the industry’s hard work and ingenuity. I am thrilled to announce that Nordson EFD received the most votes in the Equipment category.”

– ASI Magazine

2K Cartridges

From previous page

Part # (PP)	Part # (Nylon)	Usable Volume	Description	1:1	2:1	4:1	10:1
50mL SIDE X SIDE CARTRIDGE SYSTEMS							
7015724	7702891	50mL	Open-End Cartridge w/Protective Cap	✓			
7702619	7702621	50mL	Closed-End Cartridge w/Protective Cap	✓			
7704061 (PE/PBT)		—	AF Air Free Piston	✓			
7702687		—	EPDM+ O-Ring Piston (Short)	✓			
7702692	—	—	EPDM O-Ring Piston (Tall)	✓			
7702702	7702704	—	Multi-seal Piston w/Pre-staged Center Bleed Plug	✓			
7702892	7702895	50mL	Open-End Cartridge w/Retainer & Plug		✓		
7702627		50mL	Closed-End Cartridge w/Protective Cap		✓		
7702705	7702709	—	EPDM O-Ring Piston (Large side)		✓	✓	✓
7702714	—	—	EPDM O-Ring Piston (Small side)		✓		
7702896	—	42mL	Open-End Cartridge w/Retainer & Plug			✓	
7702721	—	—	EPDM O-Ring Piston (Small side)			✓	
7702900	7702902	37mL	Open-End Cartridge w/Retainer & Plug				✓
7702728	7702732	—	EPDM O-Ring Piston (Small side)				✓
160mL and 200mL SIDE X SIDE CARTRIDGE SYSTEMS							
7702939		160mL	Closed-End Cartridge w/Protective Cap	✓			
7703001		215mL	Open-End Cartridge w/Installed Nose Plug & 3/8" Nut	✓			
7703004		215mL	Open-End Cartridge w/Installed Nose Plug & 1/2" Nut	✓			
7702942	7702947	215mL	Closed-End Cartridge w/Protective Cap	✓			
7704307 (PE/PBT)		—	AF Air Free Piston	✓			
7702744*	7702745*	—	Multi-seal Piston w/Pre-staged Bleed Plug	✓			
7702950	7015947	222mL	Closed-End Cartridge w/Protective Cap		✓		
7702672*		—	Solid Multi-seal Piston (Small side)		✓		
7702752*	—	—	Multi-seal Piston w/Pre-staged Bleed Plug (Small side)		✓		
7702754*	—	—	Multi-seal Piston w/Pre-staged Bleed Plug (Large side)		✓		
300mL SIDE X SIDE CARTRIDGE SYSTEMS							
7702956	—	323mL	Closed-End Cartridge w/Protective Cap	✓			
7704307 (PE/PBT)		—	AF Air Free Piston	✓			
7702744*	7702745*	—	Multi-seal Piston w/Pre-staged Bleed Plug	✓			
400mL SIDE X SIDE CARTRIDGE SYSTEMS							
7703011		406mL	Open-End Cartridge w/Installed Nose Plug & 3/8" Nut	✓			
7703013	7028234*	406mL**	Open-End Cartridge w/Installed Nose Plug & 1/2" Nut	✓			
7702965	7702968	406mL	Closed-End Cartridge w/Protective Cap	✓			
7702677*	—	—	Solid Multi-seal Piston	✓			
7702757*	7702759*	—	Multi-seal Piston w/Pre-staged Bleed Plug	✓			
600mL SIDE X SIDE CARTRIDGE SYSTEMS							
7702971		630mL	Closed-End Cartridge w/Protective Cap	✓			
7702684*		—	Solid Multi-seal Piston	✓			
7702765*		—	Multi-seal Piston w/Pre-staged Bleed Plug	✓			
1500mL SIDE X SIDE CARTRIDGE SYSTEMS							
7703811		1500mL	Closed-End Cartridge w/Protective Cap	✓			
7704044 (PE)		—	Solid Multi-seal Piston	✓			

*These multi-seal pistons are available with O-rings. Contact Nordson EFD for details.
**Max volume on 400mL Open-End Nylon is 400mL
+Ethylene Propylene Diene Monomer

Recommended 50mL Mixers:

Series 295 and 190

Recommended Dispensers:

50mL Manual Dispenser

50mL Caulking Gun Conversion Kit

2K Equalizer (50mL)

Recommended 160–1500mL Mixers:

Series 480, 280, 281N, 160, 160AA, 161N, and 260

Recommended Dispensers:

Manual Dispense Gun (160–1500mL)

Pneumatic Dispense Gun (400–1500mL)

Cordless Dispense Gun (400–1500mL)

See 2K Accessories for Flow Restrictors

2K Cartridges

Separated bores

Joined bores

Ratio-Pak Cartridge Systems

Recommended Mixers:

Series 480, 280, 160, 161N, and 260

Recommended Dispensers:

Manual Dispense Gun (160–1500mL)

Pneumatic Dispense Gun (160–1500mL)

Cordless Dispense Gun (160–1500mL)

See 2K Accessories for Flow Restrictors

Ratio-Pak® cartridge systems offer a versatile solution to package a variety of two-part materials, including foams, coatings, potting compounds, and other adhesives and sealants.

The Ratio-Pak line uses individual cartridges that snap together with Ratio-Pak cartridges of any other size. This unique, patented design gives users the flexibility to combine multiple ratios, from 1:1 up to 25:1, to achieve proper mixing results.

Features and Benefits

- Snap-together design for easily changeable configurations
- Fit industry-standard dispense guns
- Versatile design allows different mix ratios and volumes
- Match different resins for chemical compatibility; for example, mate PP side 1 with nylon side 2

75mL RATIO-PAK CARTRIDGES				
Part #	Usable Volume	Description	Material	Color
7661540	75mL	Ratio-Pak cartridge, 7/8 - 9 outlet thread, A-side	PP	Natural
7661411	75mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	PP	Natural
7661440	75mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	Nylon	Natural
7660545	—	75mL piston rear seal, non-vented	MDPE	Black
7660873	—	75mL piston rear seal, self-vented	MDPE	Black
100mL RATIO-PAK CARTRIDGES				
7660569	100mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	PP	Natural
7660589	—	100mL piston rear seal, non-vented	MDPE	Black

Continued next page

*Must use cartridge cap 7660379

Order both side 1 and side 2 based on ratio requirement and volume.

Part numbers noted as A-side or B-side must be sold in matching pairs. A-side cartridges are only compatible with B-side cartridges.

Material:

PP (polypropylene)	LDPE (low-density polyethylene)
PE (polyethylene)	MDPE (medium-density polyethylene)
	HDPE (high-density polyethylene)

2K Cartridges

From previous page

Part #	Usable Volume	Description	Material	Color
150mL RATIO-PAK CARTRIDGES				
7364433	—	Ratio-Pak cartridge, 7/8 - 9 outlet thread, B-side	PP	Natural
7660598	150mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	PP	Natural
7660609	—	150mL piston rear seal, non-vented	MDPE	Black
7660878	—	150mL piston rear seal, self-vented	MDPE	Black
7660610	—	150mL piston rear seal, non-vented	HDPE	Black
200mL RATIO-PAK CARTRIDGES				
7661405	200mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	PP	Natural
7661403	—	200mL piston rear seal, non-vented	Nylon	Natural
250mL RATIO-PAK CARTRIDGES				
7661408	250mL	Ratio-Pak cartridge, 7/8 - 9 outlet thread, A-side	PP	Natural
7661409	250mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	PP	Natural
7661406	—	250mL piston rear seal, non-vented	MDPE	Black
7661407	—	250mL piston rear seal, self-vented	MDPE	Black
300mL RATIO-PAK CARTRIDGES				
7660650	300mL	Ratio-Pak cartridge, 7/8 - 9 outlet thread, B-side	PP	Natural
7660625	300mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	PP	Natural
7660626	300mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	Nylon	Natural
7660653	—	300mL piston rear seal, non-vented	MDPE	Black
7660884	—	300mL piston rear seal, self-vented	MDPE	Black
7660656	—	300mL piston rear seal, non-vented	HDPE	Black
600mL RATIO-PAK CARTRIDGES				
7660665	600mL	Ratio-Pak cartridge, 7/8 - 9 outlet thread, A-side	PP	Natural
7660663	600mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	PP	Natural
7660666	—	600mL piston rear seal, non-vented	MDPE	Black
7661708	—	600mL piston rear seal, self-vented	MDPE	Black
750mL RATIO-PAK CARTRIDGES				
7661410	750mL	Ratio-Pak cartridge, 7/8 - 9 outlet thread, B-side	PP	Natural
7660667	750mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	PP	Natural
7660683	—	750mL piston rear seal, non-vented	MDPE	Black
7660887	—	750mL piston rear seal, self-vented	MDPE	Black
7660668	750mL	Ratio-Pak cartridge, 7/8 - 14 outlet thread	Nylon	Natural
7660686	—	750mL piston rear seal, non-vented	HDPE	Natural
7660687	—	750mL piston rear seal, self-vented	HDPE	Natural

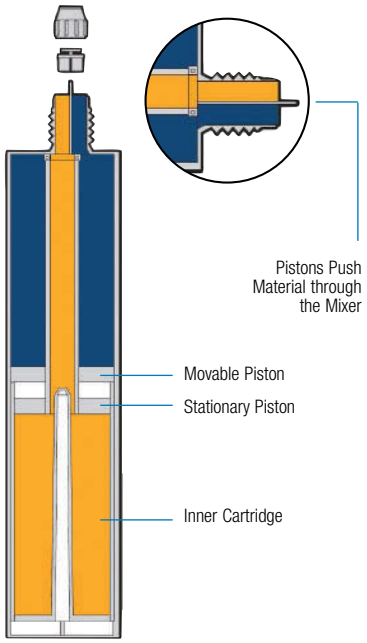
For Ratio-Pak Accessories see data sheet: www.nordsonefd.com/2KRatio-Pak

Order both side 1 and side 2 based on ratio requirement and volume.

Part numbers noted as A-side or B-side must be sold in matching pairs. A-side cartridges are only compatible with B-side cartridges.

Material:

PP (polypropylene)	LDPE (low-density polyethylene)
PE (polyethylene)	MDPE (medium-density polyethylene)
	HDPE (high-density polyethylene)



u-TAH Universal Cartridge Systems

Recommended Mixers:

Series 480, 280, 281N, 160, 160AA, 161N, and 260

Recommended Pistons:

u-TAH cartridges come with pre-installed solid multi-seal pistons

Recommended Dispensers:

Standard professional caulking gun

See 2K Accessories for Flow Restrictors

Our u-TAH® Universal Cartridge System is a breakthrough in two-component cartridge design.

The u-TAH Cartridge looks identical to standard caulking cartridges — in fact, you might not realize it is two-component until you begin to dispense your product. It is the only cartridge system that maintains accurate ratio control and fits into your existing 1/10th gallon or 310mL caulking gun. This system also fits into pneumatic (rod-driven) and battery-powered caulking tools.

The standard u-TAH cartridge contains bleed vents to allow air to escape during filling. When using low viscosity materials (less than 1000 cps), a “non-vented” version is available. Contact us for more information.

QUALITY TESTED FOR ROBUSTNESS

- The u-TAH cartridge body is molded of a rigid plastic that won't burst during the most demanding applications.
- The interior components are fully assembled, and each cartridge is air tested.
- This 100% factory inspected process guarantees that, after filling, the cartridge will maintin a superior shelf life and provide trouble-free applications in the field.

u-TAH UNIVERSAL CARTRIDGE SYSTEMS

Ratio	Part #	Description	Maximum Volume	Material
1:1	7703997	1:1 u-TAH Cartridge System	250mL	PP
2:1	7702991	2:1 u-TAH Cartridge System	180mL	PP

www.nordsonefd.com/uTAH

Coaxial design (staked)

Large bores for greater flow

380mL Coaxial Cartridge Systems

Recommended Mixers:

Series 480, 280, 281N, 160, 160AA, 161N, and 260

Recommended Pistons:

Coaxial cartridges come with pre-installed solid multi-seal pistons. Option to purchase without pistons pre-installed.

Recommended Dispensers:

Manual Dispense Gun (380mL)

The 380mL coaxial cartridge has a center tube that contains one material and an outer “doughnut” that contains a second material in a 10:1 ratio.

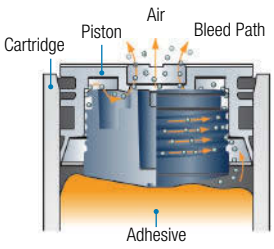
Features and Benefits

- Robust neck outlet prevents cracking
- Rotating valve opens and closes outlet
- Large valve bores for greater flow
- Molded valve seals ensure long, leak-free shelf life
- Partially used cartridges are easily re-sealed by closing valve
- Pre-inserted pistons for ease of filling through the nose
- Cartridges are staked to retain pre-installed piston after filling

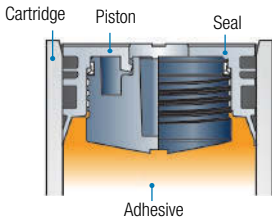
380mL COAXIAL CARTRIDGE SYSTEMS

Ratio	Part #	Description	Material
10:1	7026776	380mL coaxial cartridge assembly	Nylon
10:1	7026777	Cartridge body with valve (no staking)*	Nylon
10:1	7704170	Inner piston*	PE
10:1	7704171	Doughnut piston*	PE
10:1	7702589	Valve wrench*	–

*Sold separately



Opened Piston



Closed Piston

AF Air Free Pistons

The AF™ Air Free Piston does a superior job of venting all of the air between the material and the piston. Its unique design does not require a shim to bleed the air, nor does it require a second step to insert a center bleed plug. This piston bleeds air around the circumference of the black plug and uses the force of hitting the material to close itself in a single step.

The AF piston provides a more visible indication when the piston is completely closed, i.e., the black center plug is flush with the top of the piston. Further, since the material of construction of the AF piston is a PE/PBT combo, it is compatible with most materials, simplifying inventory.

AF AIR FREE PISTONS		
Part #	Ratio	Cartridge Type
7704061	1:1	50mL Side x Side
7704307	1:1	200–300mL Side x Side

For other pistons, see cartridge P/N tables.

www.nordsonefd.com/AFpistons

Features and Benefits

- Eliminates trapped air
- No need for shims or secondary plugging operations
- Ensures on-ratio dispensing
- Fast, foolproof operation
- Prevents material separation

Other 2K Pistons

- Solid Multi-seal
- Solid with O-ring
- Multi-seal with a Pre-staged Center Bleed Plug
- For use with Side x Side cartridges; see previous pages for part numbers
- Both u-TAH and Coaxial cartridges come pre-installed with solid multi-seal pistons

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Atlas™ 2K Piston Inserters are a fast, convenient, and cost-effective way to install AF pistons in 50mL, 200mL, and 300mL Side x Side cartridges.

Atlas 2K Piston Inserter

Features and Benefits

- Simple to set up and operate
- Pistons seat correctly every time
- Compact, space-saving footprint
- Rugged, lightweight units are easily transported for different jobs
- The 300mL unit can handle 200mL cartridges
- Designed for use with AF Air Free pistons that virtually eliminate trapped air

2K PISTON INSERTERS	
Part #	Description
7015502	50mL Piston Inserter
7015503	200mL Piston Inserter

2K Do-It-Yourself (DIY) Dual Syringes

Do-It-Yourself (DIY) Dual Syringes

The DIY disposable dual syringe line is an ideal delivery system for the controlled mixing and placement of two-component adhesives and sealants.

Along with being used for DIY adhesives, sealants, and paints in home repair and automotive aftermarket products, dual syringes can be used in many other applications, including dental, health and beauty, and animal health treatments.

Features and Benefits

- Self-venting barrels with “lead-in” aid for easy fill
- Resealable, no-leak, position-oriented cap
- Anti-crossover material ports reduce A/B contamination
- Mixers and thin-wall syringes designed for reduced dispensing force

DIY SYRINGE OUTLET OPTIONS

E-Z SNIP DIY syringe

Break-off DIY syringe

Open-ended DIY syringe

Continued next page

2K Do-It-Yourself (DIY) Dual Syringes

From previous page

Part #	Usable Volume	Description	1:1	2:1	Material	Color
4mL DIY SYRINGES						
Sold individually. Order the DIY dual syringe, plunger, cap, and mixer separately for the complete system.						
7660266	4mL	**4B19.** 2ml x 2ml clinical-type dual syringe for in-office, professional applications. Cap orientation feature prevents crossover contamination.	✓	—	PP	Natural
7660269	—	**4C19.** 4ml Cap for 4B19	✓	—	HDPE	White
7661401*	4mL	**4B25.** 2ml x 2ml cosmetic dual syringe for greater point-of-purchase impact and shelf appeal with open-ended tip. Separate one-piece plunger has integrally-molded seals.	✓	—	PP	Natural
7660272	—	**4C25.** 4ml Cap for 4B25	✓	—	HDPE	Black
7660273	—	**4P19.** 4ml Plunger for 4B19 and 4B25	✓	—	HDPE	White
7660274	—	**4P19.** 4ml Plunger for 4B19 and 4B25	✓	—	HDPE	Black
6mL DIY SYRINGES						
7661338*	6mL	**6B23.** 3ml x 3ml dual syringe with break-off tip	✓	—	PP	Natural
7661345	—	**6P23.** 6ml Plunger with integrally molded cap	✓	—	HDPE	Black
14mL DIY SYRINGES						
7660301*	14mL	**14B23.** 7ml x 7ml dual syringe with break-off tip for simplified filling and lowest cost. Available with one-piece plunger.	✓	—	PP	Natural
7660305	—	**14P23.** 14ml Plunger with integrally molded cap	✓	—	HDPE	Black
7660303	—	**14C35.** 14ml Cap	✓	—	LDPE	White
26mL DIY SYRINGES						
7661364	26mL	**26B33.** 13ml x 13ml dual syringe with cut-off tip	✓	—	PE	Silver
7660383	—	**30P33.** 26ml Plunger with integrally molded cap	✓	—	HDPE	Black
7660385	—	**30P33.** 26ml Plunger with integrally molded cap	✓	—	HDPE	Red
7660387	—	**30P33.** 26ml Plunger with integrally molded cap	✓	—	HDPE	Blue
28mL DIY SYRINGES						
7661073	28mL	**28B23.** 14ml x 14ml dual syringe with break-off tip that eliminates need for cutting. Plunger includes integrally molded cap for resealing nozzle.	✓	—	PP	Natural
7661123	—	**30P23.** 28ml Plunger with integrally molded cap	✓	—	HDPE	Purple
7660869	—	**30P23.** 28ml Plunger with integrally molded cap	✓	—	HDPE	Black
7660382	—	**30P23.** 28ml Plunger with integrally molded cap	✓	—	HDPE	Red
7661127	—	**30P23.** 28ml Plunger with integrally molded cap	✓	—	HDPE	Blue
7661129	—	**30P23.** 28ml Plunger with integrally molded cap	✓	—	HDPE	Gray

*Mixer compatible

Continued next page

2K Do-It-Yourself (DIY) Dual Syringes

From previous page

30mL DIY SYRINGES						
Part #	Usable Volume	Description	1:1	2:1	Material	Color
7661104	30mL	**30B23.** 15ml x 15ml dual syringe with break-off tip that eliminates need for cutting.	✓	—	Nylon	White
—	—	Note: P/N 7661104 (30B23) uses 30P23 plungers as 28ml listed above	—	—	–	–
7660377	30mL	**30B33.** 15ml x 15ml dual syringe with cut-off tip. Cut-off tip features two orifice openings (large or small).	✓	—	PP	Natural
—	—	Note: P/N 7660377 (30B33) uses 30P33 plungers as 26ml listed on previous page	—	—	—	—
7661093*	30mL	**30B43.** 15ml x 15ml dual syringe with break-off tip	✓	—	PP	Natural
7661230	—	**30P43.** 30ml Plunger	✓	—	HDPE	White
7661247	—	**30P43.** 30ml Plunger	✓	—	HDPE	Black
7661322*	30mL	**30B44.** 20ml x 10ml dual syringe with break-off tip	—	✓	PP	Natural
7661337	—	**30P44.** 30ml Plunger 2:1	—	✓	HDPE	White

*Mixer compatible

DIY MIXERS: NEEDLE OUTLET					
Part #	# Mixing Elements	Element Diameter (in/mm)	Housing Outlet	Compatible with (mL)	Element / Housing
7660225	8	0.08 / 2.0	Needle	4, 6, 14 ml	PP / MDPE
DIY MIXERS: BLUNT OUTLET					
7660255	8	0.12 / 3.0	Blunt	4, 6, 14 ml	PP / MDPE
7661348	16	0.18 / 4.6	Blunt	4, 6, 14 ml	PP / MDPE
7661120	16	0.18 / 4.6	Blunt	30 ml	PP / MDPE

Sold individually.

50mL Manual Cartridge Dispensers

Our manual dispenser features a versatile, compact, durable, and well-balanced design providing trouble-free, point-of-use dispensing. Custom colors and distinctive labeling are available upon request. Lightweight design accepts all ratios.

Features and Benefits

- Better Ergonomics: Lighter and more compact
- Lower cost and better delivery
- More Versatile: Accepts all ratios
- Durable: Designed to eliminate cartridge cracking

50mL MANUAL CARTRIDGE DISPENSERS

Ratio	Part #	Description	Part #	Description
1:1	7703145	Dispenser & Plunger	7703040	Plunger only
2:1	7703160	Dispenser & Plunger	7703043	Plunger only
4:1	7703161	Dispenser & Plunger	7703045	Plunger only
10:1	7703162	Dispenser & Plunger	7703046	Plunger only
—	7703139	Dispenser only	—	—

50mL Caulking Gun Conversion Kit

Nordson EFD's Caulking Gun Conversion Kit accepts most multi-ratio 50mL Cartridge Systems (1:1, 2:1, 4:1, and 10:1) including competitive 50mL bayonet cartridges. A different plunger is required for each.

Features and Benefits

- Versatile: Can be used with standard professional caulking guns
- Practical: Great for DIY/home repair, field installations, and occasional industrial use
- Cost-Effective: Ideal for sampling your adhesives

7703163
1:1 Conversion Kit

7703167
2:1 Conversion Kit

7703170
4:1 Conversion Kit

7703172
10:1 Conversion Kit

Equalizer 2K Dispensing Tool

The pneumatically operated Equalizer 2K dispensing tool makes it possible to dispense accurate, repeatable amounts of 2-component materials. It is designed for use with EFD dispensers and 50mL Side x Side cartridges and static mixers (order separately).

Features and Benefits

- Eliminates hand fatigue associated with manual dispensers
- Ideal for pre-mixing and downpacking from 2K cartridges into syringe barrels

7360152
Standard configuration provides accurate 50mL 1:1 and 2:1 dispensing.

7015864
Transfer Kit allows downpacking of 2K materials.

7360401
Conversion Kit allows use with 4:1 cartridges.

7015875
Kit Universal Stand Mount 25–50 mm.

2K Dispense Guns

Nordson EFD 2K dispense guns offer user-friendly features and the same legendary quality and state-of-the-art engineering that has become synonymous with the Nordson EFD name. Lightweight and durable, these tools make applying two-component adhesives quicker and easier. Select from 3 convenient options:

- **Manual:** Provides portable dispensing of 2K materials with a 26:1 thrust ratio.
- **Pneumatic:** Uses air pressure up to 120 psi (8.2 bar) to easily dispense thick 2K materials. Also an excellent tool for crack injection applications.
- **Cordless:** Intuitive design allows operators to dispense 2K materials without wiring or cumbersome hoses; can dispense with up to 950 lb (431 kg) of force.

2K DISPENSE GUNS				
Part #	Ratio	Description	Cartridge	Weight (lb/kg)
		Manual Guns		
7360831	1:1	Manual Dispenser Top Load	160mL	3.1 / 1.4
7029675	1:1 / 2:1	Manual Dispenser Side Load	200mL	2.6 / 1.2
7029680	1:1	Manual Dispenser Top Load	300mL	3.3 / 1.5
7029682	10:1	Coax Manual Dispenser	380mL	2.6 / 1.2
7029676	1:1 / 2:1	Manual Dispenser Side Load	400mL	2.9 / 1.3
7029677	1:1 / 2:1	Manual Dispenser Top Load	600mL	4.0 / 1.8
7029681	1:1	Manual Dispenser Top Load	1500mL	6.8 / 3.1
7661018	1:1–4:1	Manual Dispenser Top Load	225–600mL	4.2 / 1.9
7661494	1:1	Manual Dispenser with Built-In Retainer, 26:1	600mL	5.7 / 2.6
7661495	1:1	Manual Dispenser with Built-In Retainer, 34:1	600mL	5.7 / 2.6
		Pneumatic Guns		
7029678	1:1 / 2:1	Pneumatic Dispenser	400mL	7.6 / 3.4
7029679	1:1 / 2:1	Pneumatic Dispenser	600mL	8.5 / 3.9
7360275	1:1	Pneumatic Dispenser	1500mL	11.4 / 5.2
7661025	1:1–3.3:1	Multi-Ratio Pneumatic Dispenser	225–600mL	6.1 / 2.7
7661026	1:1–4:1	Multi-Ratio Pneumatic Dispenser	225–600mL	8.1 / 3.7
		Cordless Guns		
7361827	1:1 / 2:1	Cordless Dispenser UK	600mL	14.3 / 6.5

Manual

Pneumatic

Cordless

1K Dispense Guns

See 1K Dispense Guns for dispensing single-component materials.

2K High Solid Spray (HSS) System

High Solid Spray (HSS) System

For use with:

50–1500mL Side x Side Cartridges

60–1500mL Ratio-Pak Cartridges

The HSS Spray System is an innovative dispensing system using EFD Ratio-Pak and Side x Side cartridges for mixing and spraying two-component materials. Its multi-ratio design allows it to easily dispense a range of low- to high-viscosity fluids. The system can be used for a variety of industrial spraying applications, including truck bedliners, pipe coating, manhole restoration, marine repair, and roofing projects.

Features and Benefits

- Patented spray manifold/static mixer assembly
- Reliable control of air flow, volume, and pressure
- Easy to adjust spray pattern for all jobs, with quick clean-up
- Complete material mixing and atomization
- Flexibility to dispense different pigments: For example, mate color of side A Ratio-Pak cartridge with different colors of side B

LOW PRESSURE GUN – 2.5" CYLINDER			
Part #	Ratio	Description	Cartridge Size
7661435	4:3	HSS Low Pressure Dispenser	100 x 75
7661025	1:1–4:1	HSS Multi-Ratio Low Pressure Dispenser	150 x 150–300 x 75
HIGH PRESSURE GUN – 4.0" CYLINDER			
7661223	1:1	HSS High Pressure Dispenser	600 x 600
7661027	1:1	HSS High Pressure Dispenser	750 x 750
7661336	1.25:1	HSS High Pressure Dispenser	750 x 600
7661224	2:1	HSS High Pressure Dispenser	600 x 300
7661524	2.5:1	HSS High Pressure Dispenser	600 x 250
7661026	1:1–4:1	HSS Multi-Ratio High Pressure Dispenser	150 x 150–300 x 75

www.nordsonefd.com/2K-HSS

High Solid Spray (HSS) System

HSS SPRAY NOZZLES WITH MIXERS					
Part #	Description	Orifice Size (in / mm)	# of Elements	Element Diameter ID (in / mm)	Retaining Nut
7660861	Straight Conical	0.085 / 2.16	24	0.25 / 6.35	7/8 – 14
7660941	Straight Conical	0.085 / 2.16	24	0.37 / 9.52	7/8 – 14
7660855	Straight Conical	0.130 / 3.30	24	0.37 / 9.52	7/8 – 14
7660857	Straight Conical	0.130 / 3.30	24	0.37 / 9.52	7/8 – 9
7661058	Straight Conical	0.130 / 3.30	24	0.37 / 9.52	7/8 – 14
7660833	Right Angle	0.085 / 2.16	24	0.37 / 9.52	7/8 – 9
7660838	Right Angle	0.085 / 2.16	24	0.37 / 9.52	7/8 – 14
7660840	Right Angle	0.085 / 2.16	24	0.37 / 9.52	7/8 – 14
7661202	High flow, 5/8"	0.455 / 11.5	24	0.50 / 12.7	7/8 – 9

HSS AIR REGULATOR KITS	
All pneumatic guns require a regulator kit for spraying.	
Part #	Description
7660025	Air Regulator Kit – 2 feet long
7660026	Air Regulator Kit – 3 feet long

Disposable Static Mixers

Nordson EFD offers a wide variety of static mixers, including square OptiMixers™ and Turbo™ Mixers or round Spiral™ Mixers. It's important to note, you should always use an OptiMixer or Turbo unless your application requires elements with a small diameter or long reach.

Mixer Selection

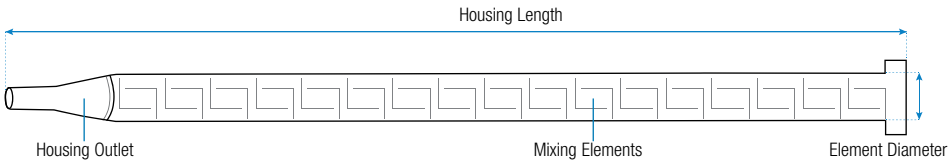
Choose the higher number of elements if one of two things occurs. Ask an EFD application specialist for recommendations.

1. Material A and B are of very different viscosities.
2. Material A and B are very wide in mix ratio (i.e. 4:1 or greater for certain types of fluids).

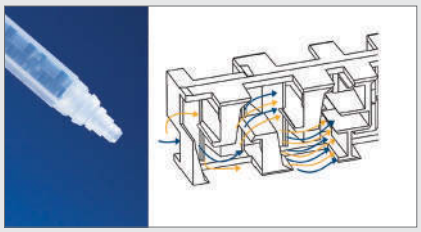
Fluid	# OF MIXER ELEMENTS
Acrylic	8 – 10
Epoxy	15 – 24
Polysulfide	24 – 32
PU Foam	10 – 24
Silicone	20 – 30
Urethane	24 – 36

MATERIAL VISCOSITY	
Viscosity	Mixer Element Diameter
Thin < 5,000 cps (Thinner than syrup)	0.093–0.25" (2.4–6.4 mm)
Medium 5,000–50,000 cps (Thicker than honey, less than ketchup)	0.212–0.314" (5.4–8.0 mm)
Thick > 50,000 cps (Thicker than ketchup)	> 0.366" (9.3 mm)

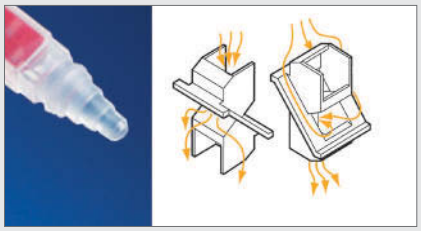
Mixer Dimension Guide



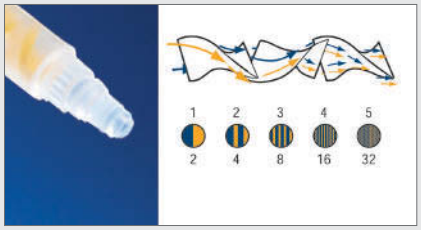
How Mixers Work — Element Geometry



OptiMixer (Square)



Turbo Mixer (Square)



Spiral Mixer

Disposable Static Mixers Quick Reference

DISPOSABLE STATIC MIXERS QUICK REFERENCE			
Page	Mixer	Cartridge Volume & Type	Element / Housing
138	Square OptiMixer 480	u-TAH (all), Coax 380mL, Side x Side 200–1500mL, Ratio-Pak (all)	Acetal / PP
140	Turbo 295	Side x Side 50mL	PP / PP
139	Turbo 280	u-TAH (all), Coax 380mL, Side x Side 200–1500mL, Ratio-Pak (all)	PP / PP
139	Turbo 281N	u-TAH (all), Coax 380mL, Side x Side 200–1500mL	Acetal, PP / PP
141	Spiral 160	u-TAH (all), Coax 380mL, Side x Side 200–1500mL, Ratio-Pak (all)	Acetal / PP
143	Spiral 160AA	u-TAH (all), Coax 380mL, Side x Side 200–1500mL	Acetal / PP
143	Spiral 161N	u-TAH (all), Coax 380mL, Side x Side 200–1500mL, Ratio-Pak (all)	Acetal / PP
144	Spiral 260	u-TAH (all), Coax 380mL, Side x Side 200–1500mL,Ratio-Pak (all)	PP / PP
140	Spiral 190	Side x Side 50–160mL	Acetal / PP

SERIES 480 OPTIMIXERS (SQUARE)

Using proprietary flow simulation technology to improve the material flow path design and element wedges, the OptiMixer Series 480 delivers better mix quality in a 20% shorter length, without impacting other performance factors. It allows users to dispense in closer proximity to applications, providing greater control and higher job quality with 30% less retained volume. Integral nut mixers have a 7/8-9 thread. SmartLok™ adapters are designed to adapt Nordson EFD OptiMixer mixers to F-System Side x Side cartridges.

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet*	Housing Outlet	Retained Volume (ml)	Element / Housing	Color
Element Width 0.344 / 8.7 (in/mm)							
7363817	9	2.4 / 6.1	Bell	Barbed	1.6	Acetal / PP	—
7361689	17	4.0 / 10.2	Integral Nut	Stepped	4.7	Acetal / PP	—
7361693	17	4.0 / 10.2	Integral Nut	Barbed	4.7	Acetal / PP	—
7361695	25	5.1 / 13.0	Bell**	Stepped	6.5	Acetal / PP	—
7361697	25	5.6 / 14.2	Integral Nut	Stepped	6.5	Acetal / PP	—
7361701	25	5.6 / 14.2	Integral Nut	Barbed	6.5	Acetal / PP	—
7361703	33	6.3 / 16.0	Bell**	Stepped	7.5	Acetal / PP	—
7361705	33	6.8 / 17.3	Integral Nut	Stepped	7.5	Acetal / PP	—
7361707	41	8.1 / 20.6	Integral Nut	Stepped	10.0	Acetal / PP	—
SMARTLOK ADAPTERS ONLY							
7362590	—	—	10:1 / 4:1	—	—	—	White
7362591	—	—	1:1 / 2:1	—	—	—	Blue

*Housing Inlet for OptiMixers assembled with SmartLok adapters are separated bore and color-coded by ratio.
**Needs retaining nut #7702598.

For use with:

- Ratio-Pak Cartridges
- u-TAH Universal Cartridges
- 380mL Coaxial Cartridges
- 200–1500mL Side x Side Cartridges

www.nordsonefd.com/2kOptiMixer

SERIES 280 TURBO MIXERS (SQUARE)

The Series 280 11.2 mm Turbo Mixer square geometry can provide superior mixing, allowing the operator to be closer to the application, and reducing the retained waste within the mixer. All mixers have 7/8 - 9 Integral Nut.

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Retained Volume (ml)	Element / Housing
Element Width 0.442 / 11.2 (in/mm)						
7701816	20	7.52 / 19.1	Integral Nut	Short Barb	15.1	PP / PP
7701818	26	9.00 / 22.9	Integral Nut	Short Barb	17.0	PP / PP

HANGING BRACKET

The optional "hanging bracket" attaches the Series 280 Mixer to Nordson EFD's u-TAH Cartridge Systems. The double-looped form snaps onto the 11.2 mm nozzle's unique ribs and over the neck of a cartridge creating a durable attachment.

Part #	Description
7703203	Hanging Bracket

SERIES 281N HIGH-FLOW TURBO MIXERS (SQUARE)

The 14.3 mm High-Flow Turbo Mixer provides higher flow rates with less effort. The square geometry consists of a series of alternating left- and right-hand elements with intermittent flow inverters which effectively channel the fluids from the walls into the center of the mixer. The High-Flow Turbo is designed to fit most disposable cartridges.

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Retained Volume (ml)	Element / Housing
Element Width 0.562 / 14.3 (in/mm)						
7701821	19	15.3 / 38.9	Integral Nut*	Short Barb	40.4	PP / PP
7701823	19	15.3 / 38.9	Integral Nut**	Short Barb	40.4	PP / PP

*Part #7701821 has a 7/8 – 14 double lead thread.
**Part #7701823 has a 7/8 – 9 thread.

For use with:

- Ratio-Pak Cartridges
- u-TAH Universal Cartridges
- 380mL Coaxial Cartridges
- 200–1500mL Side x Side Cartridges

Disposable Mixers

SERIES 295 BAYONET TURBO MIXERS (SQUARE)

The patented Series 295 Turbo Mixer ensures superior mixing performance and allows the operator to be closer to the workpiece. Designed for 50mL two-component cartridges, the Turbo geometry consists of a series of alternating left- and right-hand elements with intermittent flow inverters. The flow inverters effectively channel the fluids from the walls into the center of the mixer and from the center to the walls.

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Retained Volume (ml)	Element / Housing
Element Width 0.203 / 5.15 (in/mm)						
7701830	20	4.05 / 10.2	Bayonet	Slip Luer	1.4	PP / PP
7701832	20	3.63 / 9.2	Bayonet	Full Bore	1.4	PP / PP
7701836	20	4.05 / 10.2	Bayonet	Luer Lok	1.4	PP / PP

For use with:

50mL Side x Side Cartridges

SERIES 190 BAYONET MIXERS (SPIRAL)

Featuring a standard Bayonet connection, the Series 190 Mixer is designed for use with 50mL and 160mL two-component cartridges. The Series 190 has five diameters available with four outlet styles: Slip Luer, Full Bore, H-Tapered, and Stepped. The Slip Luer is our standard offering. The Full Bore ensures maximum flow with minimal back pressure.

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Retained Volume (ml)	Element / Housing
Element Diameter 0.093 / 2.36 (in/mm)						
7701408	12	1.5 / 3.8	Bayonet	Slip Luer	0.10	Acetal / PP
Element Diameter 0.125 / 3.18 (in/mm)						
7701411	12	2.1 / 5.3	Bayonet	H-Tapered*	0.20	Acetal / PP
7701416	24	3.4 / 8.6	Bayonet	H-Tapered*	0.40	Acetal / PP
Element Diameter 0.187 / 4.75 (in/mm)						
7701417	8	1.6 / 4.1	Bayonet	Full Bore	0.40	Acetal / PP
7701424	16	3.4 / 8.6	Bayonet	Slip Luer	0.90	Acetal / PP
7701436	16	3.4 / 8.6	Bayonet	H-Tapered*	0.90	Acetal / PP
Element Diameter 0.213 / 5.40 (in/mm)						
7701438	7	2.3 / 5.8	Bayonet	Slip Luer	0.90	Acetal / PP
7701449	17	4.4 / 11.2	Bayonet	Stepped	1.90	Acetal / PP
7701453	21	5.3 / 13.5	Bayonet	Stepped	2.40	Acetal / PP
Element Diameter 0.250 / 6.35 (in/mm)						
7701458	12	3.9 / 9.9	Bayonet	Slip Luer	1.90	Acetal / PP
7701486	16	4.8 / 12.2	Bayonet	Stepped	2.50	Acetal / PP
7701487	20	5.9 / 15.0	Bayonet	Slip Luer	3.00	Acetal / PP
7701488	20	5.9 / 15.0	Bayonet	Stepped	3.00	Acetal / PP
7701510	20	5.9 / 15.0	Bayonet	H-Tapered*	3.00	Acetal / PP
7701507	20	5.3 / 13.5	Bayonet	Full Bore	2.80	Acetal / PP
7701521**	20	5.3 / 13.5	Bayonet	Slip Luer	2.75	Acetal / PP

*The H-Tapered outlet is offered where precise placement of the adhesive is required. In order to connect Luer needles or extensions, it is molded with an interlocking connection. This requires the attachment of a Luer Lok Adapter #7700943 (bag of 50), ordered separately.
**For use with 160mL Side x Side cartridge.

For use with:

50mL–160mL Side x Side Cartridges

MIXER HOUSING OUTLET TYPES

Full Bore | Stepped | Luer Lok | Slip Luer | H-Tapered | Luer Lok Adapter

SERIES 160 BELL INLET MIXERS (SPIRAL)

The mixing nozzle of the Series 160 has a bell inlet which fits Nordson EFD valve manifolds and large volume cartridges that separately port the A and B materials directly into the mixer. Cleanup simply involves removing the mixer and wiping the manifold face clean. In the case of the cartridges, because of the divider fin, simply remove the mixer.

Our one-piece Metal Jacket is recommended if working pressure inside the nozzle exceeds 150 psi (10 bar) (only used with meter mix valves or manifolds). See 2K Accessories. The Series 160 includes 160, 161, 161A, 160AN, and 161AN. Mixer series which end in "A" are designed to work with the EFD ProTip Mixer Accesssory. See next page.

Important: For any bell housing inlet mixer, order plastic retaining nut: #7702595 for 0.189-0366" ID; or #7702598 for 0.5" ID. For Meter Mix Valves, order metal retaining nuts. See Autovalve Accessories for details.

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Outlet Tip Orifice (in/mm)	Element / Housing
Element Diameter 0.189 / 4.80 (in/mm)						
7700810	8	2.62 / 6.65	Bell	Slip Luer	0.07 / 1.78	Acetal / PP
7026047	8	2.62 / 6.65	Bell	Luer Lok	0.07 / 1.78	Acetal / PP
7700811	16	3.90 / 9.91	Bell	Slip Luer	0.07 / 1.78	Acetal / PP
7700819	24	5.18 / 13.16	Bell	Slip Luer	0.07 / 1.78	Acetal / PP
7700817	24	5.18 / 13.16	Bell	Luer Lok	0.07 / 1.78	Acetal / PP
7700824	32	6.48 / 16.46	Bell	Slip Luer	0.07 / 1.78	Acetal / PP
7700822	32	6.48 / 16.46	Bell	Luer Lok	0.07 / 1.78	Acetal / PP
7700825	48	9.04 / 22.96	Bell	Slip Luer	0.07 / 1.78	Acetal / PP
7700826	48	9.04 / 22.96	Bell	Luer Lok	0.07 / 1.78	Acetal / PP
Element Diameter 0.248 / 6.30 (in/mm)						
7700830	8	3.56 / 9.04	Bell	Slip Luer	0.09 / 2.29	Acetal / PP
7700829	8	3.56 / 9.04	Bell	Luer Lok	0.09 / 2.29	Acetal / PP
7700831	16	5.46 / 13.87	Bell	Slip Luer	0.09 / 2.29	Acetal / PP
7700834	16	5.46 / 13.87	Bell	Luer Lok	0.09 / 2.29	Acetal / PP
7700837	24	7.46 / 18.95	Bell	Slip Luer	0.09 / 2.29	Acetal / PP
7700850	24	7.46 / 18.95	Bell	Luer Lok	0.09 / 2.29	Acetal / PP
7700853	24	7.46 / 18.95	Bell	Luer Lok	0.09 / 2.29	Acetal / PP
7700856	32	9.49 / 24.10	Bell	Slip Luer	0.09 / 2.29	Acetal / PP
7700862	32	9.49 / 24.10	Bell	Luer Lok	0.09 / 2.29	Acetal / PP
7700864	32	9.49 / 24.10	Bell	Luer Lok	0.09 / 2.29	Acetal / PP
7700866	48	13.14 / 33.38	Bell	Slip Luer	0.09 / 2.29	Acetal / PP
7700872	48	13.14 / 33.38	Bell	Luer Lok	0.09 / 2.29	Acetal / PP
Element Diameter 0.314 / 8.00 (in/mm)						
7700873	18	6.96 / 17.68	Bell	Stepped	0.10 / 2.54	Acetal / PP
7700875	18	6.96 / 17.68	Bell	Luer Lok	0.10 / 2.54	Acetal / PP
7700876	24	8.84 / 22.45	Bell	Stepped	0.10 / 2.54	Acetal / PP
7700878	24	8.84 / 22.45	Bell	Luer Lok	0.10 / 2.54	Acetal / PP
7700879	32	11.44 / 29.06	Bell	Stepped	0.10 / 2.54	Acetal / PP
7700882	32	11.44 / 29.06	Bell	Luer Lok	0.10 / 2.54	Acetal / PP
7700939	40	14.14 / 35.92	Bell	Luer Lok	0.12 / 3.05	Acetal / PP
7700941	60	22.4 / 56.90	Bell	Stepped	0.12 / 3.05	Acetal / PP
7700942	64	24.0 / 60.96	Bell	Stepped	0.12 / 3.05	Acetal / PP

Continued next page

For use with:

- Ratio-Pak Cartridges
- u-TAH Universal Cartridges
- 380mL Coaxial Cartridges
- 200–1500mL Side x Side Cartridges
- Meter Mix Valves

From previous page

SERIES 160 BELL INLET MIXERS (SPIRAL)

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Outlet Tip Orifice (in/mm)	Element / Housing
Element Diameter 0.366 / 9.30 (in/mm)						
7700885	12	5.48 / 13.92	Bell	Stepped	0.12 / 3.05	Acetal / PP
7700892	12	5.48 / 13.92	Bell	Luer Lok	0.12 / 3.05	Acetal / PP
7013510	18	7.28 / 18.49	Bell	Stepped	0.12 / 3.05	Acetal / PP
7700902	18	7.28 / 18.49	Bell	Luer Lok	0.12 / 3.05	Acetal / PP
7700904	24	9.15 / 23.24	Bell	Stepped	0.12 / 3.05	Acetal / PP
7700924	24	9.15 / 23.24	Bell	Luer Lok	0.12 / 3.05	Acetal / PP
7700927	30	11.24 / 28.55	Bell	Stepped	0.12 / 3.05	Acetal / PP
7700931	30	11.24 / 28.55	Bell	Luer Lok	0.12 / 3.05	Acetal / PP
7700932	40	14.14 / 35.92	Bell	Stepped	0.12 / 3.05	Acetal / PP
Element Diameter 0.497 / 12.65 (in/mm)						
7700990	12	6.71 / 17.04	Bell	Stepped	0.18 / 4.57	Acetal / PP
7700995	12	6.71 / 17.04	Bell	Luer Lok	0.18 / 4.57	Acetal / PP
7701001	18	9.08 / 23.06	Bell	Stepped	0.18 / 4.57	Acetal / PP
7701007	18	9.08 / 23.06	Bell	Luer Lok	0.18 / 4.57	Acetal / PP
7701010	24	11.60 / 29.46	Bell	Stepped	0.18 / 4.57	Acetal / PP
7701025	24	11.60 / 29.46	Bell	Luer Lok	0.18 / 4.57	Acetal / PP
7701028	30	14.09 / 35.79	Bell	Stepped	0.18 / 4.57	Acetal / PP
7701035	30	14.09 / 35.79	Bell	Luer Lok	0.18 / 4.57	Acetal / PP
7701038	36	16.63 / 42.24	Bell	Stepped	0.18 / 4.57	Acetal / PP
7701042	36	16.63 / 42.24	Bell	Luer Lok	0.18 / 4.57	Acetal / PP

SERIES 160A MIXERS (SPIRAL)

Identical to Series 160 Bell Inlet Mixers, above, except housing outlet is designed to work with the EFD ProTip Mixer Accesssory. The ProTip allows you to easily apply a ribbon of material.

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Outlet Tip Orifice (in/mm)	Element / Housing
Element Diameter 0.314 / 8.00 (in/mm)						
7700957	24	8.84 / 22.45	Bell	ProTip	0.10 / 2.54	Acetal / PP
Element Diameter 0.366 / 9.30 (in/mm)						
7700960	18	7.28 / 18.49	Bell	ProTip	0.12 / 3.05	Acetal / PP
7700969	24	9.15 / 23.24	Bell	ProTip	0.12 / 3.05	Acetal / PP
Element Diameter 0.497 / 12.65 (in/mm)						
7701046	18	9.08 / 23.06	Bell	ProTip	0.18 / 4.57	Acetal / PP

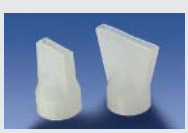
For use with:

- u-TAH Universal Cartridges
- 380mL Coaxial Cartridges
- 200–1500mL Side x Side Cartridges
- Meter Mix Valves

SERIES 163A PROTIP MIXER ACCESSORIES

The Series 163A ProTip™ Mixer Accessory is designed to provide higher speed, increased control, and an easy and cost-effi-cient way to apply ribbons when applying two-component materials. The polyethylene ProTip easily snaps onto 2K's "A" Series disposable bell housing mixers including 160A and 162A.

Part #	Description	Width	Material	Qty/Bag
7026531	ProTip Mixer Accessory	0.5"	Polyethylene	6
7026533	ProTip Mixer Accessory	1.0"	Polyethylene	6



SERIES 160AA QUICK SPRAY SYSTEMS

Nordson EFD's Series 160AA Quick Spray is a low-pressure air-assisted spray system for two-component coatings. This disposable static mixer is designed for use with conventional meter/mix equipment or with Nordson EFD's two-component cartridge system. The reactive coating is mixed within the disposable static mixer. At the mixer outlet, air is introduced which atomizes the liquid stream. The degree of atomization can be adjusted by regulating the airflow rate. Since the reactive coating is contained completely within the mixer, cleanup is minimal.

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Element / Housing
Element Diameter 0.25 / 6.32 (in/mm)					
7700846	24	7.51 / 19.08	Bell*	Tapered	Acetal / PP
Element Diameter 0.37 / 9.32 (in/mm)					
7700920	24	9.89 / 25.12	Bell*	Tapered	Acetal / PP

*Important: For any bell housing inlet mixer, order retaining nut: #7702595 for 0.189-0366" ID; or #7702598 for 0.5" ID

Note: The Series 160AA Quick Spray System also requires these parts:

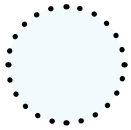
- Air Cap Assembly (#7701282)

For use with:

- u-TAH Universal Cartridges
- 380mL Coaxial Cartridges
- 200–1500mL Side x Side Cartridges

ROUND SPRAY PATTERN

The round air cap of the Series 160AA produces a full cone pattern, which is completely filled with spray drops. It is used on irregular surfaces, such as truck bed liners.



SERIES 161N HIGH-FLOW INTEGRAL NUT MIXER (SPIRAL)

This mixer is similar to the Series 260, but is constructed of a different material (element is acetal and housing is PP). It has a 7/8 – 9 integral nut.

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Retained Volume (ml)	Element / Housing
Element Diameter 0.630 / 16.00 (in/mm)						
7703903	20	17.26 / 43.84	Integral Nut	Full Bore	58	Acetal / PP

SERIES 162A HIGH-FLOW BELL MIXERS (SPIRAL)

Intended for high-flow rate meter mix applications, this series contains our largest disposable bell mixers: 0.784" in diameter with either 16, 23, 32, 39, 48, or 64 elements. The rugged nylon housing has an oversized bell inlet. The downstream outlet is designed with a 1/2" NPS male thread to attach extensions or other types of accessories.

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Element / Housing
Element Diameter 0.784 / 19.9 (in/mm)					
7701057	16	12.5 / 31.7	Large Bell	ProTip	Acetal / Nylon
7701059	23	17.0 / 43.2	Large Bell	ProTip	Acetal / Nylon
7701063	32	24.5 / 62.2	Large Bell	ProTip	Acetal / Nylon
7701066	39	30.3 / 77.0	Large Bell	ProTip	Acetal / Nylon
7701067	48	36.4 / 92.5	Large Bell	ProTip	Acetal / Nylon

Disposable Mixers

SERIES 260 MIXERS (SPIRAL)

Series 260 Spiral Mixers are available in Standard Bell and Integral Nut inlet connections. Integral Nut eliminates the need for a separate retaining nut. Options are the Series 260 Spiral Bell Mixer, Series 260 Spiral Barbed Extension Mixer, and Series 260N Spiral Integral Nut Mixer (7/8 - 9).

Part #	# Mixing Elements	Housing Length (in/cm)	Housing Inlet	Housing Outlet	Retained Volume (ml)	Element / Housing
Element Diameter 0.502 / 12.8 (in/mm)						
7701749	12	6.7 / 17.02	Bell	Stepped	15	PP / PP
7701758	18	9.1 / 23.11	Bell	Stepped	19	PP / PP
7701770	24	11.7 / 29.72	Bell	Stepped	25	PP / PP
7701759	18	14.1 / 35.8	Bell	Barb Ext	24	PP / PP
Element Diameter 0.366 / 9.3 (in/mm)						
7701742	5	4.9 / 12.4	Integral Nut	Tapered	7	Acetal / PP
Element Diameter 0.502 / 12.8 (in/mm)						
7701782	18	9.6 / 24.4	Integral Nut	Stepped	19	Acetal / PP
Element Diameter 0.789 / 20.0 (in/mm)						
7701804	16	12.9 / 32.7	Bell	Full Bore	71	Acetal / PP
7701806	20	15.6 / 39.6	Bell	Full Bore	88	Acetal / PP

MIXER HOUSING OUTLET TYPES

Full Bore | Stepped | Luer Lok | Slip Luer | H-Tapered | Luer Lok Adapter

For use with:

- Ratio-Pak Cartridges
- u-TAH Universal Cartridges
- 380mL Coaxial Cartridges
- 200–1500mL Side x Side Cartridges

Inline Mixers

Nordson EFD offers a wide range of reusable mixers with either metal or plastic elements. Inline mixers typically feature pipe threads on both ends to simplify connection to material lines.

SERIES 140 & 145 PLASTIC MIXERS

This all-plastic assembly is ideal for short pot life adhesives. Its low cost allows disposal of the mixer instead of purging or baking. The housing is translucent, so the operator can inspect the condition of the mixer. With the interior mixing elements molded of acetal, it has the toughness and chemical resistance to be inert to common solvents. Maximum service temperature is 250° F (121° C).

Part #	# Mixing Elements	Housing Ends (mnpt)	Housing Length (in/cm)	Pressure Limit+	Element / Housing
Element Diameter 0.125 / 3.18 (in/mm)					
7700634	30	Plain	3.50 / 8.89	580 / 40	Acetal* / Nylon
Element Diameter 0.189 / 4.80 (in/mm)					
7700641	32	Plain	5.40 / 13.72	430 / 30	Acetal* / Nylon
Element Diameter 0.248 / 6.30 (in/mm)					
7700650	32	Plain	8.50 / 21.59	600 / 41	Acetal* / Nylon
7700654	48	Plain	12.5 / 21.59	600 / 41	Acetal* / Nylon
Element Diameter 0.370 / 9.40 (in/mm)					
7700712	18	1/4"	9.60 / 24.38	460 / 32	Acetal* / Nylon**
7700713	24	1/4"	11.50 / 29.21	460 / 32	Acetal* / Nylon**
7700715	30	1/4"	13.50 / 34.29	460 / 32	Acetal* / Nylon**
Element Diameter 0.497 / 12.62 (in/mm)					
7700737	12	3/8"	8.50 / 21.59	350 / 24	Acetal* / Nylon**
7700738	18	3/8"	11.10 / 28.19	350 / 24	Acetal* / Nylon**
7700739	24	3/8"	13.50 / 34.29	350 / 24	Acetal* / Nylon**
7700741	30	3/8"	16.00 / 40.64	350 / 24	Acetal* / Nylon**
Element Diameter 0.630 / 16.00 (in/mm)					
7700755	20	1/2"	14.40 / 36.58	300 / 21	Acetal* / Nylon**
7700757	30	1/2"	19.70 / 50.04	300 / 21	Acetal* / Nylon**
Element Diameter 0.784 / 19.91 (in/mm)					
7700770	16	3/4"	15.10 / 38.35	240 / 17	Acetal* / Nylon**
7700773	24	3/4"	20.40 / 51.82	240 / 17	Acetal* / Nylon**
7700776	32	3/4"	25.60 / 65.02	240 / 17	Acetal* / Nylon**

+Pressure limit based on psi @300° F / bar @150° C *Elements are non-removable
**Housing also available in nylon with brass threaded ends

SERIES 70 HIGH-PRESSURE SPIRAL MIXERS

Designed for high-pressure applications, Series 70 Mixers are available in four diameters and with 21 to 32 elements. A series of left and right hand "edgesealed" spiral elements are nicrobrazed into the length of the tube and cannot be removed. Streamlined contour of the elements ensures the mixer flushes clean with less solvent. Heavy-walled tubing resists warpage during furnace cleaning (maximum furnace temperature should not exceed 1250° F / 676° C) and increases the life of the mixer.

Part #	# Mixing Elements	Housing Length (in/cm)	Pressure Limit+	Element / Housing
Element Diameter 0.292 / 7.42 (in/mm)				
7700133	27	14.00 / 35.56	3600 / 248	316 stainless steel* / 304 stainless steel**

+Pressure limit based on psi @300° F / bar @150° C *Elements are non-removable
**Housing in 304 stainless steel with plain ends

SERIES 85 HIGH-PRESSURE PIPE MIXERS

Series 85 Pipe Mixers are designed for high-pressure applications and feature sturdy metal housings with Series 120 disposable plastic mixing elements. The housing is made from heavy-walled stainless steel pipe that resists dents and distortions. For routine maintenance, the mixer can be pushed out and replaced.

Part #	# Mixing Elements	Housing Ends (mnpt)	Housing Length (in/cm)	Pressure Limit+	Element / Housing
Element Diameter 0.366 / 9.30 (in/mm)					
7700180	12	1/4"	4.20 / 10.67	8500 / 585	Acetal* / 304 stainless steel
7700182	24	1/4"	8.20 / 20.83	8500 / 585	Acetal* / 304 stainless steel
Element Diameter 0.497 / 12.62 (in/mm)					
7700193	24	3/8"	10.70 / 27.18	7250 / 500	Acetal* / 304 stainless steel
7700195	30	3/8"	13.12 / 33.32	7250 / 500	Acetal* / 304 stainless steel
Element Diameter 0.630 / 16.00 (in/mm)					
7700199	30	1/2"	16.40 / 41.66	7250 / 500	Acetal* / 304 stainless steel
Element Diameter 0.784 / 19.91 (in/mm)					
7700205	24	3/4"	16.40 / 41.66	6000 / 415	Acetal* / 304 stainless steel
7700206	32	3/4"	21.70 / 55.12	6000 / 415	Acetal* / 304 stainless steel

+Pressure limit based on psi @300° F / bar @150° C
*Elements are removable.
Select from Series 120 mixer elements below for replacement parts.

SERIES 120 PLASTIC SPIRAL MIXER ELEMENTS

The Series 120 plastic spiral elements have an “apple core” cross section. Elements are injection-molded in one operation ensuring excellent quality control and low unit cost. Benefits include long life and great flow rate, plus element flushes clean with less solvent.

Part #	# Mixing Elements	Element Diameter (in/mm)	Element Length (in/cm)	Element*
7700465	12	0.093 / 2.36	1.16 / 2.95	Acetal
7700459	12	0.125 / 3.18	1.30 / 3.30	Acetal
7700470	16	0.191 / 4.85	2.56 / 6.50	Acetal
7700166	7	0.212 / 5.38	1.48 / 3.76	Acetal
7700478	21	0.212 / 5.38	4.45 / 11.30	Acetal
7700475	8	0.248 / 6.30	2.00 / 5.08	Acetal
7700480	12	0.248 / 6.30	3.00 / 7.62	Acetal
7700481	16	0.251 / 6.38	3.96 / 10.06	Acetal
7700486	20	0.248 / 6.30	5.00 / 12.70	Acetal
7700489	24	0.248 / 6.30	5.94 / 15.09	Acetal
7700507	12	0.314 / 8.00	3.67 / 9.32	Acetal
7700498	6	0.367 / 9.32	2.00 / 5.08	Acetal
7700500	12	0.370 / 9.40	3.90 / 9.91	Acetal
7700509	24	0.370 / 9.40	7.83 / 19.89	Acetal
7700515	12	0.497 / 12.62	5.00 / 12.70	Acetal
7700519	18	0.497 / 12.62	7.47 / 18.98	Acetal
7700523	10	0.630 / 16.00	5.42 / 13.77	Acetal
7700526	8	0.790 / 20.07	5.42 / 13.77	Acetal
7700528	4	1.025 / 26.04	5.90 / 14.99	Acetal

*PP available in select sizes. Contact EFD for recommendations.

SERIES 100 INLINE MIXERS

Rugged and reliable, the Series 100 Mixers are all stainless steel and feature a modular design so you can remove the elements for easy cleaning. Two or more mixers can be coupled together using a pipe connector. Streamlined contour of the elements ensures the mixer flushes clean with less solvent. Heavy-walled tubing resists warpage during furnace cleaning (maximum furnace temperature should not exceed 1250° F / 676° C) and increases the life of the mixer.

Part #	# Mixing Elements	Housing Ends (mnpt)	Housing Length (in/cm)	Pressure Limit+	Element / Housing
Element Diameter 0.267 / 6.78 (in/mm)					
7700364	12	1/8"	5.38 / 13.67	8750 / 600	316 stainless steel* / 304 stainless steel
Element Diameter 0.363 / 9.22 (in/mm)					
7700366	6	1/4"	3.75 / 9.53	8500 / 585	316 stainless steel* / 304 stainless steel
7700367	12	1/4"	7.00 / 17.78	8500 / 585	316 stainless steel* / 304 stainless steel
Element Diameter 0.494 / 12.55 (in/mm)					
7700370	12	3/8"	9.50 / 24.13	7250 / 500	316 stainless steel* / 304 stainless steel
Element Diameter 0.623 / 15.83 (in/mm)					
7700372	6	1/2"	5.75 / 14.61	7250 / 500	316 stainless steel* / 304 stainless steel
7700373	12	1/2"	11.00 / 27.94	7250 / 500	316 stainless steel* / 304 stainless steel
Element Diameter 0.779 / 19.79 (in/mm)					
7700377	12	3/4"	14.75 / 37.47	6000 / 415	316 stainless steel* / 304 stainless steel
Element Diameter 1.032 / 26.21 (in/mm)					
7700381	6	1"	9.50 / 24.13	4500 / 310	316 stainless steel* / 304 stainless steel
7700384	12	1"	18.50 / 46.99	4500 / 310	316 stainless steel* / 304 stainless steel
Element Diameter 1.580 / 40.13 (in/mm)					
7700391	6	1-1/2"	14.00 / 35.56	3000 / 207	316 stainless steel* / 304 stainless steel
Element Diameter 2.035 / 51.69 (in/mm)					
7700395	6	2"	17.50 / 44.45	2500 / 170	316 stainless steel* / 304 stainless steel

+Pressure limit based on psi @300° F / bar @150° C *Elements are removable.
Contact EFD for replacement part recommendations.

For use with:

Meter Mix Valves

PU FOAM (FFR) MIXERS

Foam Froth Remover (FFR) mixers are intended for urethane foam applications. The extended tube serves two purposes: (1) for reach, and (2) to reduce the spiraling of material after the elements to allow for a more accurate dispense.

Part #	# Mixing Elements	Flow Rate (PPM)	Housing Length (in/cm)	Element / Housing
Element Diameter 0.50 / 12.70 (in/mm)				
7701023	24	15	13.2 / 33.53	Acetal / PP
Element Diameter 0.64 / 16.23 (in/mm)				
7700679	10	30	40.0 / 101.60	Acetal / Nylon
7700682	20	30	24.0 / 60.96	Acetal / Nylon
7701712	10	30	15.0 / 38.10	PP / Nylon
Element Diameter 0.79 / 20.07 (in/mm)				
7700688	12	60	25.0 / 63.50	Acetal / Nylon
7700690	16	60	28.0 / 71.12	Acetal / Nylon
7700692	16	60	40.0 / 101.60	Acetal / Nylon

Meter Mix Valves

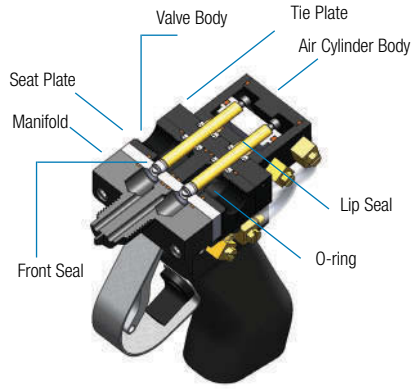
Nordson EFD provides a complete line of modular metal valves that can be easily disassembled and cleaned after mixing. Maintaining valves that handle reactive resins can be time-consuming and expensive — a plugged valve translates to lost production, and even a partially plugged mixer results in poor quality.

Features and Benefits

- Eliminate solvent flushing
- Less adhesive waste
- Cleans up easily for increased productivity

ORDERING GUIDE

- Valve, manifold, and handle are ordered individually
- For high back pressure conditions (i.e. over 1000 psi/69 bar) order a double air cylinder
- Seal Designations: T=PTFE, P=Polyurethane, V=Viton, G=Polytuff



With meter mix and dispense systems, the pneumatic Series 400 Autovalve is a durable and reliable valve. The A and B shut-off pistons have PTFE seals allowing high flow with minimal maintenance as these seals can be adjusted without disassembly of the valve body. The 9/16-18 fluid inlet ports of the Series 400 Autovalve allows flow rates of 3-4 gallons per minute, depending on pump capability and material viscosity.

MANIFOLDS FOR SERIES 400 AUTOVALVES

Ratio	Part # (Manifold)	Part # (Manifold with solvent port)	Material	Flow
1:1	7701933	7701935	Aluminum	Low Flow
1:1	7701942	—	Aluminum	High Flow
Wide	7701946	—	Aluminum	High Flow
1:1	7702109	—	Stainless Steel	High Flow

Series 400 Autovalve

7701895 400 Autovalve
Aluminum Valve, Single Air Cylinder, TPV Seals

7702095 400 Autovalve
Stainless Steel Valve, Single Air Cylinder, TGT Seals

Order handle separately; see Autovalve Accessories for details.

Recommended Mixer:

Series 160 Mixer

Options:
O-ring options: Viton, PTFE, Ethylene-Propylene (E-P)

Lip seal options: Viton, Polyurethane (PU), PTFE, Polytuff, Ethylene-Propylene (E-P)

Repair kits containing a complete set of lip seals and O-rings are available.

Specifications (Models 400 / 450HF / 450)

Valve

Size:	83.8L x 63.5W x 58.4H mm (3.3L x 2.5W x 2.3H")
Body:	6061-T6 aluminum or 303 stainless steel

Manifold

Size:	48.3L x 63.5W x 38.1H mm (1.9L x 2.5W x 1.5H")
Material:	6061-T6 aluminum or 303 stainless steel
Outlet thread size options:	7/8"-14 (for standard bell mixers) 1 5/16"-12 (for oversized bell mixers)

Valve System

Weight:	Aluminum valve and manifold: 1.6 lb (0.7 kg) Stainless steel valve and manifold: 2.5 lb (1.1 kg)
Operating parameters:	Min. operating pressure: 5.5 bar (80 psi) Max. fluid pressure: 240 bar (3500 psi)
Electric handle mount switch:	24V

The 400HF Valve provides flow rates that are 15-30% greater than the standard 400 Valve configuration, without compromising accuracy or consistency. The large 3/4" material inlet ports permit flow rates of 4-5 gallons per minute, depending on pump capability and material viscosity.

MANIFOLDS FOR SERIES 400HF AUTOVALVES				
Ratio	Part # (Manifold)	Part # (Manifold with solvent port)	Material	Flow
1:1	—	7701954	Aluminum	Ultra High
1:1	—	7704021	Stainless Steel	Ultra High

Series 400HF Autovalve

7704105 400HF Autovalve
Aluminum Valve, Single Air Cylinder, TGT Seals

7701924 400HF Autovalve
Aluminum Valve, Single Air Cylinder, TPV Seals

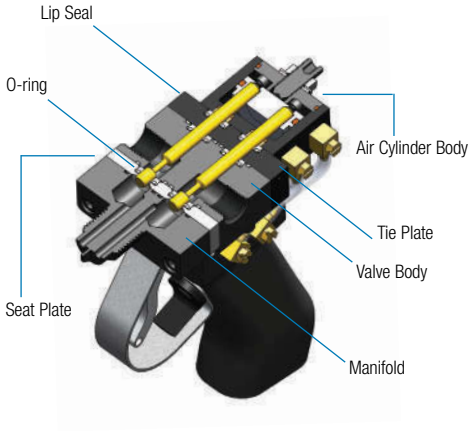
7704019 400HF Autovalve
Stainless Steel Valve, Single Air Cylinder, TPV Seals

Order handle separately; see Autovalve Accessories for details.

Recommended Mixer:

Series 162A Mixer

Specifications
See Series 400, previous page



The pneumatic Series 450 Autovalve is similar to the Series 400 Autovalve, except for the shut-off pistons which ensure good control of dot or shot volume. After each shot, the dual pistons retract and "snuff back" material from the end of the mixing nozzle. This feature helps eliminate "after drool." This valve includes hard-coated and lubricated pistons. It can be used either as a stationary head or hand-held unit. In addition, seals can be adjusted without disassembly of the valve body.

MANIFOLDS FOR SERIES 450 / 450RC / 450XT AUTOVALVES				
Ratio	Part # (Manifold)	Part # (Manifold with solvent port)	Material	Flow
1:1	7702221	7702222	Aluminum	Low Flow
1:1	7702541	7702452	Stainless Steel	Low Flow
Wide	7702453	–	Stainless Steel	Low Flow

Series 450 Autovalve

7702201 450 Autovalve
Aluminum Valve, Single Air Cylinder w/Snuff Back, GT Seals

7702209 450 Autovalve
Aluminum Valve, Single Air Cylinder w/Snuff Back, PV Seals

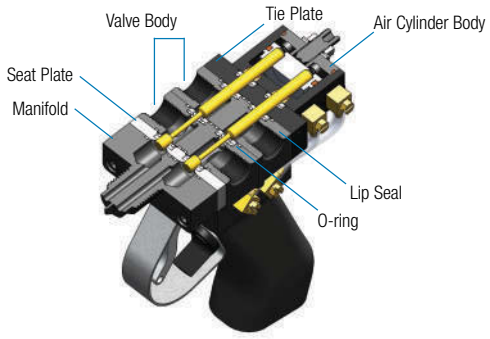
7702443 450 Autovalve
Stainless Steel Valve, Single Air Cylinder w/Snuff Back, GT Seals

Order handle separately; see Autovalve Accessories for details.

Recommended Mixer:

Series 160 Mixer

Specifications
See Series 400, previous page



Series 450RC Recirculating Autovalve

7702217 450RC Autovalve
Aluminum Valve, Single Air Cylinder w/ Snuff Back, GT Seals

Order handle separately; see Autovalve Accessories for details.

Recommended Mixer:

Series 160 Mixer

Options:
O-ring options: Viton, PTFE, Ethylene-Propylene (E-P)

Lip seal options: Viton, Polyurethane (PU), PTFE, Polytuff, Ethylene-Propylene (E-P)

Repair kits containing a complete set of lip seals and O-rings are available.

The 450RC Autovalve allows continuous flow of material while still being able to control shut-off at the mixer. Typical uses are for heated materials or materials with fillers that need to remain suspended. Recirculation occurring at the valve instead of the pump eliminates pressure buildup in the lines, preventing off-ratio dispensing.

Manifolds: See Series 450 Manifold Table, previous page

Specifications

Valve

Size:	132L x 63.5W x 58.4H mm (3.3L x 2.5W x 2.3H")
Body:	6061-T6 aluminum or 303 stainless steel

Manifold

Size:	48.3L x 63.5W x 38.1H mm (1.9L x 2.5W x 1.5H")
Material:	6061-T6 aluminum or 303 stainless steel
Outlet thread	7/8"-14 (for standard bell mixers)

Valve System

Weight:	Aluminum valve and manifold: 2.0 lb (0.9 kg) Stainless steel valve and manifold: 3.4 lb (1.5 kg)
Operating parameters:	Min. operating pressure: 5.5 bar (80 psi) Max. fluid pressure: 240 bar (3500 psi)
Electric handle mount switch:	24V

Series 450XT Snuff Back Valve

7702216 450XT Autovalve
Aluminum Valve, Extended Air Cylinder with Snuff Back and GT Seals

Order handle separately; see Autovalve Accessories for details.

Recommended Mixer:

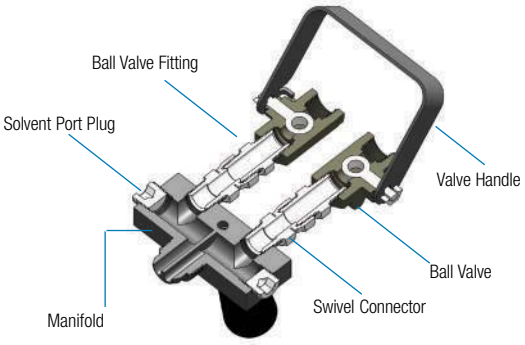
Series 160 Mixer

This innovative dispense valve is designed specifically for two-component urethanes and eliminates exposure of wetted shafts to air. Since 2K urethanes are moisture sensitive, any contact with air can cure the material, locking up the dispense valve.

Manifolds: See Series 450 Manifold Table, previous page

Specifications

Weight:	Aluminum valve and manifold: 1.6 lb (0.7 kg) Stainless steel valve and manifold: 2.5 lb (1.1 kg)
Pressure Rating:	240 bar (3500 psi)



Series 600 High Flow Manual Valve

7702569 Manual Valve
High Flow Valve Assembly

Recommended Mixer:

Series 162A Mixer

The Series 600 “MEGA” Valve was specifically designed to be used with the 2K 162A Series disposable 3/4" diameter static mixer. The “MEGA” 600 allows the user to handle both high flow and high viscosity materials easily.

The A & B components are separately ported through the valve body and do not combine until they meet inside the static mixer.

ACCESSORIES	
Part #	Description
7026515	Retaining Nut
7702583	Solvent Flush Check Valve

Specifications

Material Inlet:	1/2" FNPT
Maximum working pressure:	40 bar (600 psi)

CARBON STEEL PIPE ADAPTERS

Part	Part #	Description
	7702420	90° Elbow w/3/8" FNPS
	7702425	Straight Adapter w/3/8" FNPS
	7702429	2K V-Parts CS H-Adpt Elbow 1/2" FNPT

SWIVEL CHECK VALVE ADAPTERS

Part	Part #	Description
	7702408	SS w/Alum. Collar, 1/4" FNPT
	7702409	All SS, 1/4" FNPT

TRIGGER HANDLES

If using an electric handle, a solenoid from an outside vendor is required.
Elbow adapters are available to connect material lines to the valve.

Part	Part #	Description
	7701971	Pistol Grip Handle w/Electric Momentary Switch (24V)
	7701973	Pistol Grip Handle w/Electric Push On/Off Switch (24V)
	7701977	Pistol Grip Handle w/Pneumatic Switch

RATIO CHECK CAP AND NIGHT CAP

Part	Part #	Description
	7701181	PTFE Night Cap & Nut
	7701184	PTFE Ratio Check Cap & Nut

REPAIR KITS

Part	Part #	Description
	7704092	2K Kit 4X0 Repair TFV
	7704093	2K Kit 4X0 Repair TGT
	7704094	2K Kit 4X0 Repair TGV
	7704095	2K Kit 4X0 Repair TPV
	7704096	2K Kit 4X0 Repair TTT

VALVE SEALS

EFD offers a wide variety of seal configurations for Series 400/450 autovalves. Select both the O-ring and U-cup seals based on chemical compatibility.

Part	Part #	Material	Color	Description
		O-rings		
	7702275	PTFE	Orange	Recommended with all chemicals
	7702810	EP	Black	MEK, ketones, and acetones
	7702813	Viton	Brown	Methylene chloride, alcohol, and carbon tetrachloride
		U-cups		
	7702280	PTFE	Aqua	With PTFE O-ring / Recommended with all chemicals
	7702277	UHPME	Clear	With SS spring / Epoxies (amine catalyst), polyesters, and acrylics
	7702281	PU	Orange	With Viton O-ring / Epoxies (general), polyurethanes, and polysulfides

BLOCK MANIFOLDS FOR MIXERS

Nordson EFD's two-component manifolds separately port the resin and hardener into the mixing nozzle. Cleanup simply involves wiping the manifold face after the nozzle has been removed. To prevent back flow or cross contamination of reactive material, inline check valves are available. Designed for when you're dispensing without a meter mix valve, but directly through the mixer. For use with Series 160 and 162A.

Part	Part #	Material	Inlet	Outlet	Solvent Ports	Mixer
	7701323	Aluminum	(2) 1/8" FNPT	7/8 - 14	1/4" FNPT	Series 160
	7701324	Aluminum	(2) 1/4" FNPT	7/8 - 14	–	Series 160
	7701325	Aluminum	(2) 1/4" FNPT	7/8 - 14	1/4" FNPT	Series 160
	7701328	Aluminum	(2) 1/2" FNPT	1-5/16 - 12 UN	–	Series 162A
	7701329	Aluminum	(2) 1/2" FNPT	1-5/16 - 12 UN	1/4" FNPT	Series 162A

ADAPTERS FOR MIXERS

Mixers can be connected to some pre-existing manifolds or valves using adapters. Contact Nordson EFD for details. For use with Series 85, 100, 160, and 162A.

Part	Part #	Material	Inlet
	7701252	Carbon Steel	11/16" Female NPT (for Venus Gun)
	7701254	Carbon Steel	1/4" Male NPT
	7701315	Carbon Steel	1" Male NPT

DISPENSING TIPS FOR MIXERS

Luer Lok adapters (locking hubs) are used for attaching Optimum dispensing tips to Series 190 and 160 mixers. If you want to use a metal jacket with the 3.16" ID or 1/4" ID bell mixers, order the mixer and the Luer Lok fitting as two separate items unassembled: square hub outlet and #7700943 Luer Lok fitting (bag of 50). See Optimum Dispensing Tips for details.

FLOW RESTRICTORS

Nordson EFD recommends the use of our Flow Restrictor when dispensing cartridges filled with low viscosity fluids. Thin adhesives are often too free flowing and can cause cross-contamination, lead/lag problems, and plugging. Our low-cost, plastic Flow Restrictor eliminates these issues by slowing the thinner component's flow. Use the smallest orifice possible, based on material viscosity.

Part #	Type	Orifice Size (in/mm)	Material	Color	Ratio-Pak	u-TAH	Side x Side
7660764	Flat	1.6 x 1.6 mm (0.063 x 0.063")	LDPE	Black	✓	—	—
7660766	Flat	Dual Slit	LDPE	Black	✓	—	—
7660768	Flat	Slit x 4.8 mm (Slit x 0.188")	LDPE	Black	✓	—	—
7661231	Tabbed	2.4 x 2.4 mm (0.094 x 0.094")	LDPE	White	✓	—	—
7661232	Tabbed	Dual Slit	LDPE	Blue	✓	—	—
7702861	Conical	1.6 x 1.6 mm (0.063 x 0.063")	PP	Transluscent	—	✓	—
7702862	Conical	2.4 x 2.4 mm (0.094 x 0.094")	PP	Black	—	✓	—
7702804	Conical	1.6 x 1.6 mm (0.063 x 0.063")	PP	White	—	—	✓


Flow restrictor


Remove plug


Insert restrictor


Attach mixer

RETAINING NUTS FOR MIXERS & METER MIX VALVES

Available to hold mixing nozzles onto adapters, block manifolds, and meter mix valves. Also used when a metal jacket is not required.

Part	Part #	Material	Thread	Mixer
	7701110	Aluminum	2K Standard 7/8 - 14	Series 160 with ID 0.189-0.248"
	7701113	Aluminum	2K Standard 7/8 - 14	Series 160 with ID 0.314-0.497"
	7701114	Aluminum	Alternative 7/8 - 9	Series 160 with ID 0.314-0.497"
	7701115	Aluminum	2K Standard 7/8 - 14	Series 141 & Series 161 (all)
	7701116	Aluminum	Alternative 7/8 - 9	Series 161 (all)
	7701108	Aluminum	1-1/16 - 12	Series 141 (all)
	7026515	Carbon Steel	1-5/16 - 12 UNF	Series 162A (all)
	7701132	Aluminum	1-1/4 - 12 NS	Series 141 (all)
	7701118	Aluminum	2K Standard 7/8 - 14	Series 141 (all)

ONE-PIECE METAL JACKETS FOR MIXERS ON METER MIX VALVES

For medium- and high-pressure systems where pressure inside the mixer is greater than 150 psi (10 bar), we recommend that a metal jacket be used over the mixing nozzle. Select Robotic version where repeat positioning is required.

Part	Part #	Material	Thread	Mixer Part #	Mixer
	7701124	Aluminum, Robotic	2K Standard 7/8 - 14	7700837	Series 160
	7701138	Aluminum, Robotic	2K Standard 7/8 - 14	7700819	Series 160
	7701140	Aluminum	2K Standard 7/8 - 14	7700819	Series 160
	7701143	Aluminum	2K Standard 7/8 - 14	7700856	Series 160
	7701163	Aluminum	Alternative 7/8 - 9	7013510	Series 160
	7701167	Aluminum	2K Standard 7/8 - 14	7700904	Series 160
	7701165	Aluminum, Robotic	2K Standard 7/8 - 14	7700904	Series 160
	7701171	Aluminum	2K Standard 7/8 - 14	7700927	Series 160
	7701170	Aluminum, Robotic	2K Standard 7/8 - 14	7700927	Series 160
	7701174	Aluminum	2K Standard 7/8 - 14	7700932	Series 160
	7701203	ACS Nut / SS Jacket	2K Standard 7/8 - 14	7701010, 7701049	Series 160
	7701208	Aluminum, Robotic	2K Standard 7/8 - 14	7701010, 7701049	Series 160
	7701210	CS Nut / SS Jacket	2K Standard 7/8 - 14	7701028	Series 160
	7701216	CS Nut / SS Jacket	2K Standard 7/8 - 14	7701038	Series 160
	7701396	Aluminum, Robotic	2K Standard 7/8 - 14	7361695	Series 480
	7701225	CS Nut/SS Jacket	1-5/16 - 12	7701057	Series 162A
	7701226	CS Nut/SS Jacket	1-5/16 - 12	7701059	Series 162A

Useful Resources

Choosing and implementing the best possible fluid dispensing equipment starts with access to the best possible resources. Here are some to get you started:

Application Videos

Visit our Video Gallery to access 150+ application, how-to, and product videos. See EFD dispensing solutions in action.

Watch Videos: www.nordsonefd.com/VideoGallery

What Our Customers Say

Find out how Nordson EFD helps manufacturers improve their fluid dispensing processes every day — see what our customers have to say.

Our Customers Know Best: www.nordsonefd.com/Testimonials

Expert Recommendations

Knowledgeable Nordson EFD fluid application specialists have, on average, more than 10 years of experience helping customers find the right dispensing solutions.

Request Expert Advice: www.nordsonefd.com/Advice

Request Lab Test: www.nordsonefd.com/ApplicationTest

Follow our Blog: www.nordsonefd.com/Blog

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Find Part Numbers: www.nordsonefd.com/Digital-Catalog

Machine Builder Guide & CAD Models

When you partner with Nordson EFD, you benefit from a wide range of reliable, best-in-class precision fluid dispensing solutions.

Learn more: www.nordsonefd.com/MachineBuilderGuide

Download CAD models: www.nordsonefd.com/CAD

Dot Volumes

Volume = D^3 x 0.5236 ÷ 2*
(* 1/2 the volume of a sphere)

Volume of Dots

dot	mm	inches	V cc
·	0.5	0.02	0.00003
•	0.8	0.03	0.0001
•	1.0	0.04	0.0003
•	1.3	0.05	0.0005
•	1.8	0.07	0.001
•	2.3	0.09	0.003
•	2.8	0.11	0.006
•	3.3	0.13	0.009
•	3.8	0.15	0.014
•	4.3	0.17	0.021
•	4.8	0.19	0.029
•	5.6	0.22	0.046
•	6.1	0.24	0.059
•	6.6	0.26	0.075

Volume of Dots

dot	mm	inches	V cc
•	7.6	0.30	0.116
•	8.9	0.35	0.184
•	10.2	0.40	0.275
•	11.4	0.45	0.391
•	12.7	0.50	0.536
•	19.1	0.75	1.810

Bead Volumes

Volume of Beads

Bead diameter		Volume per linear inch	
mm	inches	cubic inch	cc's
1.6	0.06	0.0031	0.050
2.4	0.09	0.0069	0.113
3.2	0.12	0.0123	0.201
4.8	0.19	0.0276	0.453

Volumes and Conversions

Volume

1 fluid ounce	= 29.57 cubic centimeters
1 gallon	= 3785 cubic centimeters
1 gallon	= 3.785 liters
1 gallon	= 128 fluid ounces
1 gallon	= 4 quarts
1 gallon	= 8 pints
1 gallon	= 16 cups
1 gallon	= 231 cubic inches
1 gallon	= 0.134 cubic feet
1 liter	= 0.264 gallons
1 liter	= 1.06 quarts
1 liter	= 1000 milliliters
1 cubic foot	= 1728 cubic inches
1 cubic foot	= 7.48 gallons
1 cubic inch	= 16.387 cubic centimeters
1 cubic centimeter	= 1 milliliter
1 microliter	= 0.001 cc's
1 microliter	= 1000 nanoliters
1 nanoliter	= 0.000001 cc's
1 nanoliter	= 1000 picoliters

Weight

1 kilogram	= 1000 grams
1 kilogram	= 2.2 pounds
1 pound	= 16 ounces
1 pound	= 453.6 grams
1 pound	= 7000 grains
1 ounce	= 28.35 grams

Length

1 micron	= .0000394 inches
1 micron	= 0.001 millimeters
1 centimeter	= 10 millimeters
1 centimeter	= 10,000 microns
1 inch	= 2.54 centimeters
1 inch	= 25.4 millimeters
1 inch	= 25,400 microns
1 foot	= 30.48 centimeters
1 yard	= 91.44 centimeters
1 mile	= 5280 feet
1 mile	= 1.6 kilometers

Pressure

1 psi	= 0.069 bar
1 psi	= 0.070 kgf/cm²
1 psi	= 6894.8 Pa
1 psi	= 27.680 in H_2O@4° C

Fluid Viscosities

Dispensing conditions are driven by many factors. When selecting the correct system for your application, the material's properties, including viscosity and deposit size, are important considerations.

Viscosity is the measurement of a fluid's internal resistance to flow. This is usually designated in units of centipoise or poise, but can be expressed in other measurements as well. Refer to the chart below.

APPROXIMATE VISCOSITIES OF COMMON MATERIALS (at room temperature — 21° C (70° F)	
Material	**Viscosity in Centipoise**
Water	1 — 5
Kerosene	10
Anti-freeze or Ethylene Glycol	15
Motor Oil SAE10	50 — 100
Motor Oil SAE30 or Maple Syrup	150 — 200
Motor Oil SAE40 or Castor Oil	250 — 500
Motor Oil SAE60 or Glycerin	1,000 — 2,000
Corn Syrup or Honey	2,000 — 3,000
Molasses	5,000 — 10,000
Chocolate Syrup	10,000 — 25,000
Ketchup or Mustard	50,000 — 70,000
Tomato Paste or Peanut Butter	150,000 — 250,000
Shortening or Lard	1,000,000 — 2,000,000
Caulking Compound	5,000,000 — 10,000,000
Window Putty	100,000,000

Typical Assembly Materials Dispensed with EFD Systems

- Activators
- Anaerobics
- Coatings
- Cyanoacrylates
- Electrolytes
- Epoxies
- Fluxes
- Gels
- Greases
- Lubricants
- Oils
- Marking Inks
- RTV/Sealants
- Solder Pastes
- Solvents
- UV-Cure & Light-Cure
- White Glues

Conversion Factors

100 Centipoise	=	1 Poise
1 Centipoise	=	1 mPa•s (Millipascal Second)
1 Poise	=	0.1 Pa•s (Pascal Second)
Centipoise	=	Centistoke x Density

"We ordered supplies yesterday and 17 hours later, they arrived! 2 years and never a problem of any kind. Thanks."
– Progressive Mfg. Co.

EFD Mission

Provide best-in-class fluid management solutions, built on EFD's continued investment in applications knowledge, innovative products, operational excellence, superior customer service, and a lasting commitment to quality.

and Vision

Be the global leader in providing our customers premium fluid management solutions for low-volume precision dispensing markets.

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 Aveiro

"The quality of their product, as well as their knowledge and support, have been nothing short of excellent."
– Lorik 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 Ima Automation

"The quality of the packages that we put our products in matters. That's why we use EFD syringes and cartridges."
– Dymax

Nordson EFD

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