

# Liquid Coating

**Product Catalog** 



# Liquid Coating Catalog

**Industrial Coating Systems** 

#### **About Nordson**

Nordson is the leader in precision dispensing equipment for applying industrial liquid and powder coatings, adhesives and sealants to numerous consumer and industrial products during manufacturing operations. Nordson solutions also include test and inspection equipment and curing and surface preparation systems. We operate in 30+ countries around the world.

The products displayed in this catalog are an illustration of our range, however we can provide a solution to most any application need. For more information, please contact us at 800.626.8606 or explore Nordson products at <a href="https://www.nordson.com/ics">www.nordson.com/ics</a>

Find your local Nordson office at www.nordson.com\directory

### Non-Electrostatic Guns



#### Trilogy® Non-Electrostatic Spray Guns

- Comprehensive range of guns, encompassing air assist airless, air spray and low-volume/low-pressure technologies.
- Quick-Clip technology provides fast and easy removal and installation of the needle without changing the gun settings.
- Stainless steel nozzle and needle combinations throughout the range.
- Fast exchange and adjustment of air cap 1/4 turn of the retaining ring

#### **Resources**

Manuals: <u>emanuals.nordson.com</u> Web Content: <u>nordson.com/liquid</u>

#### **Manual Spray Guns - Trilogy**

		Nozzle Shipped With*	Features**
General Purpose, Gravity Feed (GP)	1600762	1.0mm (p/n 1600958)	Quick-Clip Technology
Automotive Coating, Gravity Feed (AC)	1600763	1.3mm (p/n 1600966)	Quick-Clip Technology & air gauge
General Purpose, Gravity Feed (GP)	1601125	1.0mm (p/n 1600959)	Quick-Clip Technology
Automotive Coating, Gravity Feed (AC)	1601130	1.3mm (p/n 1600967)	Quick-Clip Technology & air gauge
	1600761	0.33mm 50° (p/n 1600878)	Built in fluid filter, 3625 psi (250 Bar)
	Automotive Coating, Gravity Feed (AC) General Purpose, Gravity Feed (GP)	Automotive Coating, Gravity Feed (AC) 1600763  General Purpose, Gravity Feed (GP) 1601125  Automotive Coating, Gravity Feed (AC) 1601130  1600761	Automotive Coating, Gravity Feed (AC) 1600763 1.3mm (p/n 1600966)  General Purpose, Gravity Feed (GP) 1601125 1.0mm (p/n 1600959)  Automotive Coating, Gravity Feed (AC) 1601130 1.3mm (p/n 1600967)  1600761 0.33mm 50° (p/n 1600878)

Many other nozzles are available, see online documentation

<sup>\*\*</sup> All guns include stainless steel nozzle / needles, and swivel joint air connection point





#### **Automatic Spray Guns - Trilogy**

Model	Part Number	Nozzle Shipped With:	Features		
Air Spray (AS)	1601873	1.0mm 50° (p/n 1601905)	Separate atomizing air and spray pattern control		
Low Volume Low Pressure (LVLP)	1600770	1.0mm 50° (p/n 1600976)	Separate atomizing air and spray pattern control		
Air Assisted Airless (AAA)	1600769	0.33mm 50° (p/n 1600878)	Up to 3625 psi (250 Bar) external adjustment of packing cartridge		
* Many other nozzles are available, see online documentation  ** All guns include stainless steel nozzle / needles					





### Non-Electrostatic Guns (continued)



#### **A7A Automatic Airless Spray Guns**

- Single and dual modular automatic spray guns are high-cycle, air-operated, airless spray guns.
- Ideal for general finishing as well as ultra-high speed applications using solventborne or waterborne coatings or sealants.
- Produce fine atomisation and a soft, controllable spray to deliver excellent finish quality with minimal overspray.
- Fast response time (30 to 40 milliseconds) and high-speed cycling capability (up to 2500 cycles per minute).

#### A7A Quattro™ Automatic Airless

- High-cycle, air-operated, modular airless spray gun with four gun modules supplying one manifold and nozzle.
- It can be used for general finishing as well as ultra-high speed applications using solventborne or waterborne coatings, where quick color changes are required.
- Combines all the features of the A7A standard guns, but with added color change functionality.



#### **A7A Spray Guns**

Gun	Part Number	
GUN, A7A, Standard, single chamber, with ball and seat	153150	
GUN, A7A, Stainless steel, single chamber, with needle and seat	153160	
GUN, A7A, stainless steel, with manifold	1032379	
GUN, A7A, Dual, stainless steel, with manifold	1059500	
GUN, A7A, Quattro™, stainless steel	1601975	
Nozzles not included, refer to page 14 for nozzle details		

#### Resources

Manuals: <a href="mailto:emanuals.nordson.com">emanuals.nordson.com</a> Web Content: <a href="mailto:nordson.com/liquid">nordson.com/liquid</a>

#### **Prism Non-Electrostatic Automatic Spray Guns**

- Can be used in both heated and non-heated, circulating and non-circulating spray systems
- Adjustable pattern control (horn) air pressure
- Tool adjustable atomizing air
- Easy disassembly for cleaning and repair
- Self-adjusting packing cartridge
- Split, independently adjustable atomizing and horn air



Gun	Part Number
Prism Gun, automatic, circulating	1089971
Prism Gun, automatic, non-circulating	1089973





#### **Maverick Non-Electrostatic Manual Spray Guns**

- Compact gun with lightweight, ergonomic design and easy trigger pull that reduces operator fatigue
- Convenient, built-in cheater valve for greater air pressure control
- Stainless-steel fluid passages accommodate a variety of coatings, ranging from low viscosity to high-solids solvent and waterbased coatings
- Hardened, stainless-steel needle for longer life and lower maintenance costs
- Self-adjusting packings

Gun	Part Number
Maverick Gun, manual air spray	1059760
Maverick Gun, manual HVLP spray	1059773

#### **A4B Airless Manual Spray Gun**

- Lightweight, rugged and dependable for ease of operation and long service life in manual airless painting operations.
- Available in a non-circulating version for cold airless painting and a circulating version for use in high-performance heated airless painting.
- Stainless steel models available for highly corrosive materials or special applications.

Gun	Part Number	
Basic, circulating w/swivel fitting	152200	
Basic, non-circulating w/swivel fitting	152320	
Stainless Steel, circulating w/rigid fitting	152480	
Stainless Steel, non-circulating 152450		
Nozzles not included, refer to page 14 for nozzle details		



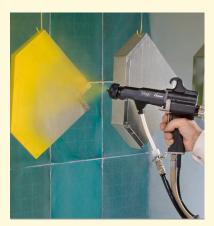
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# Electrostatic Guns





Nordson Trilogy electrostatic spray systems are designed with coating versatility in mind. Featuring two atomization technologies – air spray and high volume, low pressure (HVLP) – Trilogy systems deliver superior application performance with a variety of substrates, coatings and part profiles.

The fluid tip and air cap you choose determines the spray gun technology, either HVLP or air spray. HVLP technology creates a soft spray with high transfer efficiency, reducing emissions of volatile organic compounds (VOCs). HVLP atomization is typically coarser than air spray when used with high-viscosity fluids and high flow rates.

Air spray technology atomizes material at higher air pressures and lower air flows than HVLP spray guns. Air spray guns produce a very fine, atomized mist. This makes them useful for extremely fine finishing work.

#### **Trilogy Electrostatic Guns**

Gun	Туре	Part Number	Nozzle Shipped With*
Trilogy Manual Gun	AirSpray/HVLP Waterborne	1091981	
	AirSpray/HVLP Solventborne	1090697	Fluid tips and air caps not included with the gun. Choose fluid tip and air caps below dependent
Trilogy Automatic Gun	AirSpray/HVLP Waterborne	1090981	upon the spray technology you require, either Air Spray or HVLP
	AirSpray/HVLP Solventborne	1090428	Spray or nver

#### **Air Spray Air Caps**

Part Number	Air Cap Marking	Flow Rate	Fan Width Pattern	Usage		
245985	985	2 - 10 oz/min (0.059 - 0.295 l/min)	6 - 12 in (15.24 - 30.48 cm)	Universal air cap, low flow rates		
245986	986	8 - 12 oz/min (0.236 - 0.355 l/min)	12 - 18 in (30.48 - 45.72 cm)	Medium flow rates		
245987	987	10 - 20 oz/min (0.296 - 0.592 l/min)	12 - 18 in (30.48 - 45.72 cm)	High flow rates, must use for fluid tips 0.80 in and larger		
245988	988	2 - 11 oz/min (0.059 - 0.326 l/min)	12 - 18 in 30.48 - 45.72 cm)	Low flow rates, high solids or metallics		
1092156	991	2 - 11 oz/min (0.059 - 0.326 l/min)	up to 16 in (< = to 40.64 cm)	Low flow rates, high viscosities		
1092157	992	2 - 11 oz/min (0.059 - 0.326 l/min)	up to 16 in (< = to 40.64 cm)	Low flow rates, high solids or metallics		
1103490	90 Kit, nozzle, conical, 10"					

#### **HVLP Fluid Tip and Air Cap Selection Chart**

			Air Cap Part Number							
Part	Orifice		eral Purpose	Use	Light Visc	osity, Low S	olids Use	Heavy V	iscosity, Higl High Flow	n Solids,
Number	Dia	1092119 0.140"	1092130 0.150"	1092131 0.160"	1092132 0.170"	1092133 0.190"	1092134 0.210"	1092135 0.230"	1092137 0.250"	1092138 0.270"
1089574	0.030"	А	А	В	В	С	D	E	X	X
1089575	0.035"	А	А	В	В	С	D	E	Е	Х
1089576	0.040"	А	А	В	В	С	D	Е	Е	Е
1089577	0.050"	А	А	А	В	С	С	D	Е	Е
1089578	0.060"	X	А	А	А	В	С	D	Е	Е
1089579	0.070"	Х	Х	А	А	В	С	D	Е	Е
1089580	0.080"	X	X	Χ	А	В	С	D	Е	Е
1089581	0.100"	Х	X	Х	Х	X	В	С	D	E
Compliand	ce air cap	1094642	1094643	1094644	1094645	1094646	1094647	1094648	1094649	1094650
Complia	nce kits	1094668	1094669	1094680	1094681	1094682	1094683	1094684	1094685	1094686

Note: Compliance kit includes cap, gauges and tubing (only for testing)

#### **Gun Controllers**

Part Number	Туре
1083263	Controller, Manual, IPS-20
1083504	Controller, Auto, IPS-20

#### **Trilogy Gun and Controller Packages**

Part Number	Туре
1603809	Kit,Trilogy Manual Gun W/Controller
1603810	Kit,Trilogy Automatic Gun W/Controller

<sup>\*</sup>Solventborne only; contains gun, controller, and cable

#### **Air Spray Fluid Tips**

Part Number	Orifice Dia
1089619	0.012"
1089631	0.020"
1089632	0.030"
1089634	0.040"
1089635	0.046"
1089636	0.059"
1089637	0.070"
1089638	0.080"
1089639	0.090"
1089641	0.100"

#### **HVLP Chart Key**

Fluid Tip	Typical Application
А	Stains, bleaches, fine finishes
В	Stains, lacquer, fine finishes
С	Primers, metallics, urethanes, waterbornes
D	Metallics, solid colours, plural component
E	High solid waterbornes, plural components
X	Not Recommended



The OptiMix 1 plural component system is an electronically controlled proportioning and mixing unit for the processing of solvent- and water-based coatings. Through its precision and flexibility, the OptiMix unit provides high efficiency and excellent surface quality. As a result, it is an ideal solution for a variety of general industry and trade applications.

The OptiMix unit allows the rapid change of up to 10 different base or catalyst materials. It can be used for lowand high-pressure spraying. The system also processes paints in a wide range of viscosities and flow rates.

#### **Features and Benefits**

- Allows the rapid change of up to 10 different base and catalyst materials for quick color or coating chemistry change.
- Processes both solvent- and water-based paints for application versatility.
- Dynamic dosing provides a complete mix of base and catalyst components.
- 3625 psi (250 bar) pressure rating
- Controlled measurement provides precise ratio verification.
- Management of up to 10 individual recipes, allowing the user to flush and change colors or coating chemistries at the push of a button.
- USB port allows easy data collection.
- Ratio error and pot life alarm alerts user to an off-ratio or end of pot life situation.
- Five-inch touch screen is easy to see and use.
- 2K and 3K configurations

#### **Areas of Application**

- Agriculture Equipment
- Heavy Equipment
- Aerospace
- **Furniture**
- **Transportation**
- **General Finishing**

#### **Spraying Technologies**

- **Air Assist Airless**
- Air Spray
- HVLP (high volume, low pressure)
- LVLP (low volume, low pressure)
- Electrostatics
- Rotary Atomization



### **Technical Specifications**

Toominour Opcomoduc			
Mixing Ratio Range	0.5:1 to 50:1		
Proportioning Tolerance	+/-3%		
Controllable Valves (base + catalyst)	10		
Number of recipes	10		
Maximum Fluid Pressure, 3mm valve	3625 psi (250 bar)		
Maximum Fluid Pressure, 6mm valve	725 psi (50 bar)		
Maximum Fluid Temperature	176F (80C)		
Viscosity Range	20 - 5000 cps		
Fluid Flow Range	100 - 3000 cc/min		
Fluid Fitting Thread - inlet	3/8"G, 3/8" NPS, 1/2"-20 JIC*		
Fluid Fitting Thread - outlet	3/8" NPS, 1/2"-20 JIC*		
Maximum Air Pressure	100psi (7 bar)		
Air Fitting Size	1/4G or 1/4 NPT*		
Power supply requirements	85-250 VAC, 50/60 Hz		
Amperage draw	2 amps		
Controller Voltage	24 VDC		
Ambient Temperature range	41-122 F (5-50 C)		
Wetted parts	Stainless steel, UHMW-PE, PTFE, FKM, Tungsten Carbide		
Fluids Handled	Solvent- and water-based, 2K and 3K paints, and adhesives		



#### **Ordering Information**

See the selection guide below to choose the Nordson part number corresponding to the OptiMix system that is right for you.

- 1. Determine the number of required base and catalyst components.
- 2. Select the valve size based on flow. All valves are rated for 3625 psi (250 bar).
- 3. For most applications requiring ratios of 10:1 and above, use 6 mm/3 mm combo.

#### 2K System - 3MM Base and Catalyst Valves

			Number of Base Components								
		1	2	3	4		6	7	8	9	
10	1	1605080	1605081	1605083	1605086	1605090	1605095	1605100	1605105	1605111	
r of st ents	2	1605082	1605084	1605087	1605091	1605096	1605101	1605107	1605112		
aly on	3	1605085	1605088	1605092	1605097	1605102	1605108	1605113			
at a	4	1605089	1605093	1605098	1605103	1605109	1605114				
Sop	5	1605094	1605099	1605104	1605110	1605115					

#### 2K System - 6MM Base and Catalyst Valves

			Number of Base Components								
		1	2	3	4	5	6	7	8	9	
(0	1	1605116	1605117	1605119	1605122	1605126	1605131	1605136	1605141	1605146	
r of st ents	2	1605118	1605120	1605123	1605127	1605132	1605137	1605142	1605147		
aly on	3	1605121	1605124	1605128	1605133	1605138	1605143	1605148			
Num Cat	4	1605125	1605129	1605134	1605139	1605144	1605149				
ŽÖÖ	5	1605130	1605135	1605140	1605145	1605150					

#### 2K System - \*6MM Base and 3MM Catalyst Valves

			Number of Base Components								
		1	2	3	4	5	6	7	8	9	
40	1	1605151	1605152	1605154	1605157	1605161	1605166	1605172	1605177	1605182	
of st ents	2	1605153	1605115	1605158	1605162	1605167	1605173	1605178	1605183		
aly on	3	1605156	1605159	1605163	1605168	1605174	1605179	1605184			
Num Cata	4	1605160	1605164	1605169	1605175	1605180	1605185				
ŽÖ	5	1605165	1605170	1605176	1605181	1605186					

#### **3K System - 3MM Base and Catalyst Valves**

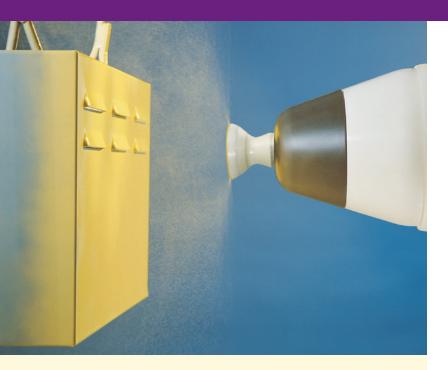
			Number of Base Components							
		1	2	3	4	5	6	7	8	
40	1	1605187	1605188	1605190	1605194	1605198	1605203	1605208	1605214	
of st ents	2	1605189	1605192	1605195	1605199	1605204	1605209	1605215		
ber alys one	3	1605193	1605196	1605200	1605205	1605210	1605216			
Num Cat	4	1605197	1605201	1605206	1605211	1605217				
žοg	5	1605202	1605207	1605213	1605218					

#### 3K System - \*6MM Base and 3MM Catalyst Valves

			Number of Base Components							
		1	2	3	4	5	6	7	8	
f	1	1605219	1605220	1605222	1605225	1605229	1605234	1605239	1605244	
r o	2	1605221	1605223	1605226	1605230	1605235	1605240	1605245		
taly pon	3	1605224	1605227	1605231	1605236	1605241	1605246			
Num	4	1605228	1605232	1605237	1605242	1605247				
Ž	5	1605233	1605238	1605243	1605248					



### Rotary Atomizer



The RA-20 rotary atomizer is an electrostatic spray device incorporating an air-powered turbine. It can apply most solvent, waterborne, UV and plural component coating materials, including high solids and metallics.

- Close-in painting for high transfer efficiency and superior penetration into part recesses
- Outstanding atomization delivers fine finishes and precise film-build control
- Excellent fan pattern control significantly reduces overspray to reduce paint waste
- Wide fan pattern adjustability from 8 to 42 inches
- Compact size for easier positioning within spray booth
- Long-life, air-bearing turbine
- Durable composite cup
- Safe, non-sparking operation
- Choice of manual or automatic controllers
- Special design helps prevent backflow into turbine at high flow rates and during flushing operation
- FM-approved

The RA-20 rotary atomizer is available in several versions with different electrostatic charging configurations. Options and accessories include solvent and dump valves, cups, nozzles, fluid tubes and turbine speed display.

- **Cable-fed** The cable-fed version uses a remote power supply and high-voltage cable.
- Integral Power Supply (IPS) The IPS version includes an internal multiplier, and charges the paint material as it is sprayed.
- Waterborne The coating material is charged before being pumped to the RA-20 rotary atomizer by using a Nordson Iso-Flo® HD Voltage Block System.

Atomizer Assemblies	Part Number			
RA-20 Atomizer, Cable fed	295360			
RA-20 Atomizer, Internal Power Supply	295359			
RA-20 Atomizer, Waterborne	295361			
CUP, 2-in. diameter, with fins, pads, assembly supplied as standard				

#### **Robot Mount**

Solvent	Part Number
RA-20R 0° Mount	304423
RA-20R 45° Mount	308995
RA-20R 60° Mount	308993
RA-20R 90° Mount	304221

Waterborne	Part Number
RA-20R 0° Mount	304424
RA-20R 45° Mount	308996
RA-20R 60° Mount	307994
RA-20R 90° Mount	304222





#### **Cups and Accesories**

Patented Nordson RA-20 atomizing cups are available in several sizes and styles to optimize atomizer performance. The composite construction of each cup contributes to the non-sparking design, and is actually more durable than conventional metal cups.

- **Finned cup** delivers excellent atomization and finish quality across the widest range of paints and coatings.
- Smooth cup a more suitable choice for thicker coatings such as emulsions and most water-reducible coatings.
- MicroFin<sup>™</sup> cup typically provides finer atomization for higher viscosity coatings.

Nordson also offers a pattern control kit for a smaller more uniform spray pattern without compromising efficiency.

Options	Part Number
CUP, 2-in. diameter, microfin, assembly	321330
CUP, 2-in. diameter, with fins, pads, assembly	302126
CUP, 2-in. diameter, without fins, pads, assembly	302127
CUP, 2.5-in. diameter, microfin, assembly	321331
CUP, 2.5-in. diameter, with fins, pads, assembly	302130
CUP, 2.5-in. diameter, without fins, pads, assembly	302131
CUP, 1.5-in. diameter, with fins/tap, pads, assembly	335289
CUP, 1.5-in. diameter, without fins, pads, tap, assembly	335301
Pattern control kit, RA-20	1020756

#### **Power Supplies**

The Nordson XPS series power supplies produce high voltage, low current power for safe, effective charging of liquid coatings. XPS power supplies provide superior electrostatic charging for high quality finishes and efficient material utilization. Two models are available for use with the RA-20 rotary atomizer:

- **XPS 60** for use with the Iso-Flo and the RA-20 Atomizer in waterborne applications
- **XPS 115** for use with the high voltage cable-fed RA-20 Atomizer and the ESB-100 Shaping Bar in solventborne applications

Description	Part Number
Power Supply, XPS 60	1606606
Power Supply, XPS 1115	295359



#### Resources

Manuals: <a href="mailto:emanuals.nordson.com">emanuals.nordson.com</a> Web Content: <a href="mailto:nordson.com/liquid">nordson.com/liquid</a>



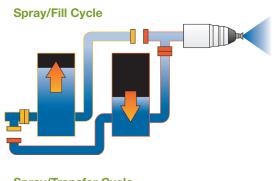
### Iso-Flo HD Voltage Block System

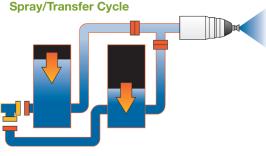
For many finishing operations, the most cost-effective way to reduce VOC emissions is to convert from solvent-based to waterborne coatings. But due to the higher electrical conductivity of waterborne coatings, it is necessary to isolate the charged paint-supply system from any ground source. The Nordson Iso-Flo HD voltage block offers an easier, safer and far more costeffective way to spray electrostatically charged waterborne coatings. The system supplies charged coating to the spray devices while preventing the charge from conducting back through the paint-supply system. Nordson Iso-Flo systems are built for the most demanding finishing requirements with high-capacity, field-repairable pumps that provide long life with minimal maintenance. The automatic Iso-Flo System allows continuous coating to be sprayed for more production output.

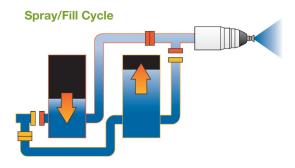
#### **How the Iso-Flo HD System Works**

An Iso-Flo HD manual or automatic voltage block is installed near the spray booth, and is connected between the grounded paint-supply system and the spray devices. Coating is pumped from the paint-supply system to paint reservoirs inside the voltage blocks. Electrostatic isolation is maintained with a series of shuttle valves that alternately connect the reservoirs to the grounded paint supply and the spray devices. Manual Iso-Flo HD configurations are available for single-gun manual painting systems. The automatic Iso-Flo system can supply charged coating to mupltiple automatic spray guns.

#### **Iso-Flo Automatic System Schematic**







#### **Iso-Flo System for Automatic Spraying**

The Iso-Flo unit for automatic spraying contains two paint reservoirs to provide a continuous uninterrupted flow of paint. One reservoir supplies charged coating to the spray devices while the second reservoir refills from the grounded paint supply. Once the second reservoir is filled, it disconnects from the spray devices, connects to the paint supply and refills. The reservoirs hold enough paint to ensure a continuous supply of charged paint to the spray devices. And since air gaps are maintained between the shuttles, the electrostatic charge will not conduct back through the paint-supply system.

#### **Iso-Flo Manual System Schematic**





#### **Iso-Flo Systems**

System	Part Number
Iso-Flo System, HD, Automatic Coating	224245
Iso-Flo System, HD, Manual Coating	225579
Iso-Flo System, VC, Manual Coating 1606759	
Face and the second sec	

For system integration consult your Nordson representative for advice on power supplies, pumps, filters and heater options.



### **Power Supply**

The Nordson XPS 60 power supply produces high voltage, low current power for safe, effective charging of waterborne liquid coatings using the Iso-Flo and the RA-20 Atomizer or Trilogy Waterborne Spray Gun.

Description	Part Number
Power Supply, XPS 60	1606606



### Waterborne Iso-Flo Electrostatic Dolly System

The Waterborne Iso-Flo Electrostatic dolly system is designed for use with the Trilogy™ waterborne air spray or HVLP spray gun. Intended for use with manual waterborne applications, the system reduces component assembly and provides ease of mobility. In addition to the gun and Iso-Flo VC, the system includes the XPS 60 power supply with cable and fluid and air hose.

Description	Part Number
Waterborne Iso-Flo Electrostatic Dolly System	1609488





### Airless Nozzles



Nozzles provide superior atomization and control when spraying high-solids, viscous and other hard-to-atomize materials.

Finishers are continually challenged with maintaining excellent product quality and coating performance throughout each stage of their operations. In the past, spraying high-solids, viscous and other hard-to-atomize coatings and materials has been possible either by adding solvents, heating the material or increasing fluid pressure. The use of solvents increases cost and time to build the desired film thickness. Plus, stringent environmental regulations for reduced VOC emissions make this alternative more prohibitive. And increasing fluid pressure – in excess of 68 bar – to improve atomization creates overspray and bounceback. This results in wasted coating material, increased equipment wear and shop environment problems for other personnel.

#### **Nozzle Design**

Nordson Cross-Cut® nozzles are designed to provide improved atomization with a wide range of materials, including highly viscous and difficult-to-atomize coatings. Cross-Cut nozzles produce greater atomizing energy at a given fluid pressure, compared to conventional airless spray nozzles. Excellent atomization is achieved at reduced fluid pressure, resulting in a softer, low-velocity spray that helps minimize dripping, material waste and equipment wear for maximum coating efficiency and material utilization.

- Nordson Cross-Cut nozzles produce significantly wider fan patterns (up to 70cm) than conventional airless nozzles
- Cross-Cut nozzle design is inherently less prone to plugging
- Cross-Cut nozzles atomize materials at lower pressures, which produces a softer, more controllable spray with minimal overspray and bounceback
- When Cross-Cut nozzles begin to wear, both flow rate and fan pattern width increase together and film thickness remains nearly constant
- Finer atomization provides a higher quality airless finish than is possible with standard nozzles
- Softer spray pattern substantially improves airless electrostatic efficiency and wrap
- Cross-Cut nozzles require no additional regulators to adjust.

Whether your coating operation is electrostatic or non-electrostatic, manual or automatic, over 1,200 Nordson Cross-Cut nozzles in a wide range of nozzle types, spray pattern widths and flow rates are available, or can be custom designed, to meet your specific application requirements.

For our full Nozzle Catalog: www.emanuals.nordson.com/finishing/files/catalog.pdf



# Pumps, Filters & Heaters

#### **Liquid Piston Pump Range**

Fluid / Air Ratio	Part Number	Product Name	Notes
2:1	1077620	25B Pump	Plated Steel, Type F Packings
2:1	247536	25B Pump	Plated Steel, Type U Packings
3:1	1601703	Stediflo®	
4:1	1077621	25B Pump	Plated Steel, Type F Packings
4:1	247537	25B Pump	Plated Steel, Type U Packings
6:1	1601704	Stediflo®	
8:1	1601705	Stediflo®	
10:1	1601681	Stediflo®	
12:1	1601706	Stediflo®	
15:1	244766	64B Pump	Aluminium
15:1	247027	64B Pump	Stainless Steel, Type U Packings
15:1	1024648	Permaflo®	Stainless Steel, Type U Packings
15:1	1085453	Permaflo®	Stainless Steel, Type D Packings
15:1	1065204	Permaflo®	Stainless Steel, Type F Packings
15:1	1602026	Permaflo®	Stainless Steel, Type F, Self Adjusting Packings
16:1	245556	25B Pump	Aluminium, Type U Packings
16:1	247238	25B Pump	Stainless Steel, Type U Packings
18:1	1601688	Stediflo®	
27:1	245555	25B Pump	Aluminium, Type U Packings
27:1	247062	25B Pump	Stainless Steel, Type U Packings
30:1	244773	64B Pump	Aluminium, Type F Packings
30:1	247028	64B Pump	Stainless Steel, Type F Packings
30:1	1023362	Permaflo®	Stainless Steel, Type U Packings
30:1	1085452	Permaflo®	Stainless Steel, Type D Packings
30:1	1065202	Permaflo®	Stainless Steel, Type F Packings
30:1	1602027	Permaflo®	Stainless Steel, Type F, Self Adjusting Packings
32:1	1601689	Stediflo®	
57:1	1601692	Stediflo®	

#### **NH-4 Heaters**

System	Part Number
Heater (AL) 115 Volt, 1700 Watts	245672
Heater (SS) 115 Volt, 1700 Watts	712905
Heater (AL) 230 Volt, 1700 Watts	245674
Heater (SS) 230 Volt, 1700 Watts	246665
Heater (AL) 460 Volt, 1700 Watts	245676
Heater (SS) 460 Volt, 1700 Watts	248334





### Resources



Туре	Material	Applications
D	Cotton duck and synthetic fabric saturated with Buna-nitrile and Teflon	Good for less abrasive applications where strong solvents are not used. Contains PTFE to reduce friction.
F	PTFE V-rings stacked with leather V-rings	Most commonly used packing in the finishing industry. Use for strong solvents and abrasive materials.
U	Ultra-High Molecular Weight Polyethylene (UHMWPE)	Good for highly abrasive materials. Compatible with waterborne and most solventborne materials. Slight swelling may occur when exposed to hydrocarbon

solvents.

#### Filters & Screens

System	Part Number	
Filter, Stainless Steel, Plug Drain	338180	
Filter, Stainless Steel, Ball Valve Drain	338182	
Filter, Stainless Steel, Dual, 3 Way Valve	338431	
Filter, Stainless Steel, Dual, Check Valve	338442	
Screen, reinforced, 0.003 in. (micron 74)	161103	
Screen, reinforced, 0.004 in. (micron 105)	161104	
Screen, reinforced, 0.006 in. (micron 177)	161106	
Screen, reinforced, 0.009 in. (micron 250)	161109	
Screen, reinforced, 0.012 in. (micron 297)	161112	
Screen, reinforced, 0.015 in. (micron 420)	161115	
Screen, reinforced, 0.020 in. (micron 595)	161120	
Screen, not reinforced, 0.020 in. (micron 595)	161020	
Screen, not reinforced, 0.030 in. (micron 762)	161030	
All filter screens listed are compatible with each filter assembly		

Each filter assembly is shipped with 0.006 in. filter screen (161106)

Manuals: <a href="manuals.nordson.com">emanuals.nordson.com</a> Web Content: <a href="manuals.nordson.com/liquid">nordson.com/liquid</a>



## Diaphragm Pumps



Nordson offers a complete line of liquid diaphragm pumps that are designed to maximize efficiency, compatibility and economy in many applications. Our diaphragm pumps are engineered for low-pressure applications and can handle even the most abrasive or shear-sensitive materials. These self-priming pumps run at variable flow rates controlled by air pressure or fluid back pressure regulation.

Available in various sizes and flow rates, Nordson diaphragm pumps provide high performance in a complete range of liquid applications - from manual spray guns to full paint kitchens.

- **Higher productivity** the combination of maximized flow rates and minimized pulsation and air consumption optimize performance.
- **Highly versatile** multiple porting capabilities allow pump customization to meet specific application needs.
- Extreme reliability lube-free air valves provide worry-free operation.
- **Environmentally sound** bolted construction in conjunction with wetted material options provides maximum chemical and leak resistance.
- Easy serviceability modular construction, reduced parts count and repair kits minimize downtime and costs.

#### Coating Capability

- Solvent-based
- Water-based
- High Solids
- UV Curable
- Abrasive Materials
- Plural Component

#### **Application Versatility**

Nordson diaphragm pumps can be used with a variety of application equipment:

- Air Spray Guns
- LVLP (low volume, low pressure) Guns
- HVLP (high volume, low pressure) Guns
- Trilogy<sup>™</sup> Air Spray/HVLP Electrostatic Gun
- RA-20 Rotary Atomizer
- Optimix<sup>™</sup> I Plural Component Dispensing System

#### **Diaphragm Pumps with NPT Ports**

Part Number	Port Size (NPT)	Max Flow (gpm)*	Body Material
1604628	1/4"	5.3	Conductive Acetal
1604629	3/8"	10.6	Conductive Acetal
1604631	1/2"	14.4	Conductive Acetal
1604633	1/2"	12	Stainless Steel
1604587	1"	35	Aluminum
1604588	1"	35	Stainless Steel

<sup>\*</sup> Size pump to operate at 50% or less of rated capability All balls and seats are stainless steel; diaphragms are PTFE faced Santoprene

#### **Diaphragm Pumps with BSP Ports**

Part Number	Port Size (BSP)	Max Flow (gpm)*	Body Material
1604628	1/4"	5.3	Conductive Acetal
1604630	3/8"	10.6	Conductive Acetal
1604635	1/2"	14.4	Conductive Acetal
1604637	1/2"	12	Stainless Steel
1604589	1"	35	Aluminum
1604590	1"	35	Stainless Steel

<sup>\*</sup> Size pump to operate at 50% or less of rated capacity All balls and seats are stainless steel; diaphragms are PTFE faced Santoprene



# Diaphragm Pump Accessories

#### **Air Line Kit**

Part Number	Description
1604726	KIT, 1/4IN NPT AIR LINE

The air line kit is used with all diaphragm pump sizes to provide regulated and filtered air. The kit includes: 5 feet of air hose with  $\frac{1}{4}$ " NPT male connector, an industrial style quick disconnect coupling, filter/regulator, and pipe nipple.

#### **Wall Mount Siphon Hose**

Part Number	Description
1604731	HOSE, SIPHON, 5G, 1/4 AODD
1604772	HOSE, SIPHON, 5G, 3/8 AODD
1604735	HOSE, SIPHON, 5G, 1/2 AODD
1604736	HOSE, SIPHON, 55G, 1/4 AODD
1604737	HOSE, SIPHON, 55G, 3/8 AODD
1604738	HOSE, SIPHON, 55G, 1/2 AODD
1604739	HOSE, SIPHON, 55G, 1 AODD

Siphon Hoses are used when pumping from an open container or a day tank cover. Includes intake screen and 5 feet of hose. Threads are NPT, and are the size shown in the description.

#### **Container Mount Siphon Tube**

Part Number	Description
1604733	TUBE, SIPHON, 5G, 1/4 AODD
1604734	TUBE, SIPHON, 5G, 3/8 AODD
1604771	TUBE, SIPHON, 5G, 1/2 AODD
1604767	TUBE, SIPHON, 55G, 3/8 AODD
1604768	TUBE, SIPHON, 55G, 1/2 AODD
1604769	TUBE, SIPHON, 55G, 1 AODD

Siphon tubes are stainless steel, and are used with container mounted configurations. Threads are NPT, and are the size shown in the description.

#### Single Post Lift

Part Number	Description
1604723	LIFT, SINGLE POST

The single post lift provides an easy solution to perform a drum change. The lift is mounted to the floor. Compressed air is used to raise and lower the drum cover during a container change.

#### **Tank Mount Adapter**

Part Number	Description
1604747	ADAPTER, TANK MNT1/2 AODD

The tank adapter allows a 1/2" pump to be mounted on any type of material container. It requires a bulkhead type mounting. Nuts and bolts included. Siphon tube is not included.













# Diaphragm Pump Accessories (continued)

#### **Wall Mount Brackets**

Part Number	Description
1604729	BRKT, WALL MNT, 1/4,1/2 AODD
1604730	BRKT, WALL MNT, 3/8 AODD
1604732	BRKT, WALL MNT, 1 AODD

Wall mount brackets are made of heavy gage coated steel. Pump mounting hardware included. Use for pump size shown in the description.

#### **Material Agitators**

Part Number	Description
1604724	AGITATOR, 5-GALLON
1604725	AGITATOR, 55-GALLON

Each agitator is provided complete with propellers and a pneumatic needle valve for speed adjustment. Pail agitators operate at 500-1000 rpm, drum agitators operate at 300-3000 rpm. Agitator shafts and propellers are made of 316 stainless steel.

#### **Bung Mount Adapter**

Part Number	Description				
1604749	MOUNT, 55G BUNG, 1/2 AODD				

The drum adapter allows a 1/2" diaphragm pump to mount directly to and siphon from the 2" NPSM drum bung. Supplied with siphon tube and mounting nuts and bolts.

#### **Diaphragm Pump Pail System**

Part Number	Description
1604623	SYSTEM, PAIL, 3/8NPT, AODD

The pail system comes complete with a 3/8" diaphragm pump, agitator, fluid filter, pump air regulator, atomizing air regulator, and pail. Fluid outlet is 3/8" NPT, air inlet is 1/4 NPT.

#### **Container Covers**

Part Number	Description					
1604740	COVER, 5G, 1/4 AODD					
1604741	COVER, 5G, 3/8 AODD					
1604742	COVER, 5G, 1/2 AODD					
1604727	COVER, 5G, DAY TANK					
1604744	COVER, 55G, 3/8 AODD					
1604745	COVER, 55G, 1/2 AODD					
1604746	COVER, 55G,1 AODD					
1604728	COVER, 55G, DAY TANK					

Container covers are stainless steel and will accommodate both diaphragm pump, siphon tube, and agitator mounting. Mounting fasteners are included; siphon tube is ordered separately. Day tank covers include a port to insert a siphon hose, and do not have a pump mount. 5G covers have a diameter of 12" (305 mm). 55G covers have a diameter of 24 7/8" (632 mm). Use for pump size shown in the description.











# Fluid Regulators

### Regulators

	Part Number	Description	Туре	Port size (NPT)	Base Housing Material	Seat Material	Regulated Pressure Range PSI (bar)	MAX Inlet Pressure PSI (bar)	Gauge Pressure Range
	1604752	REG, 1/4IN, 5-125, DWNSTRM	Downstream	1/4"	Zinc	Tungsten Carbide	5-125 (.3- 8.5)	750 (51.7)	
	333825	REGULATOR, FLUID	Downstream Air Piloted	1/4"	Stainless Steel	Tungsten Carbide	5-100 (.3- 6.9)	250 (17.2)	
	1604640	REG, 3/8, 0-200 PSI, DWNSTRM	Downstream	3/8"	Stainless Steel	Tungsten Carbide	30-200 (2-14)	1250 (86)	0-300 (0-20)
	1604748	REG, 3/8 IN, 0-200 PSI, BKPRS	Backpressure	3/8"	Stainless Steel	Tungsten Carbide	0-200 (0- 13.8)	1250 (86)	0-300 (0-20)
	1604750	REG, 3/8 IN, 0-800 PSI, BKPRS	Backpressure	3/8"	Stainless Steel	Tungsten Carbide	0-800 (0- 55.2)	1250 (86)	0-1000 (0-70)
	1604751	REG,1.25, 0-200 PSI, BKPRS	Backpressure	1-1/4"	Stainless Steel	Tungsten Carbide	0-200 (0- 13.8)	200 (13.8)	0-300 (0-20)
9	247873	REGULATOR, PRESS, FLUID, SOFTSEAT	Downstream	1/4"	Stainless Steel	Soft Seat	10-1500 (0.7-103)	10,000 (690)	
	248830	REGULATOR, PRESS, FLUID, HARDSEAT	Downstream	1/4"	Stainless Steel	Tungsten Carbide	10-1500 (0.7-103)	10,000 (690)	
	1010775	REGULATOR, 0-800 PSI CARBIDE SEAT	Downstream	3/8"	Stainless Steel	Tungsten Carbide	0-800 (0-55)	10,000 (690)	
	1087229	REGULATOR ASSY, UNIVERSAL, NON-CONDUCTIVE	Downstream Air Piloted	3/8"	Nylon	Tungsten Carbide	5-100 (.39 - 6.9)	250 (17.2)	





### **Support**

Free, 24 hour, access to multi language operator manuals, maintenance procedures and spare part lists are available online at:

emanuals.nordson.com

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LQL-17-5759 Revised 2/17

