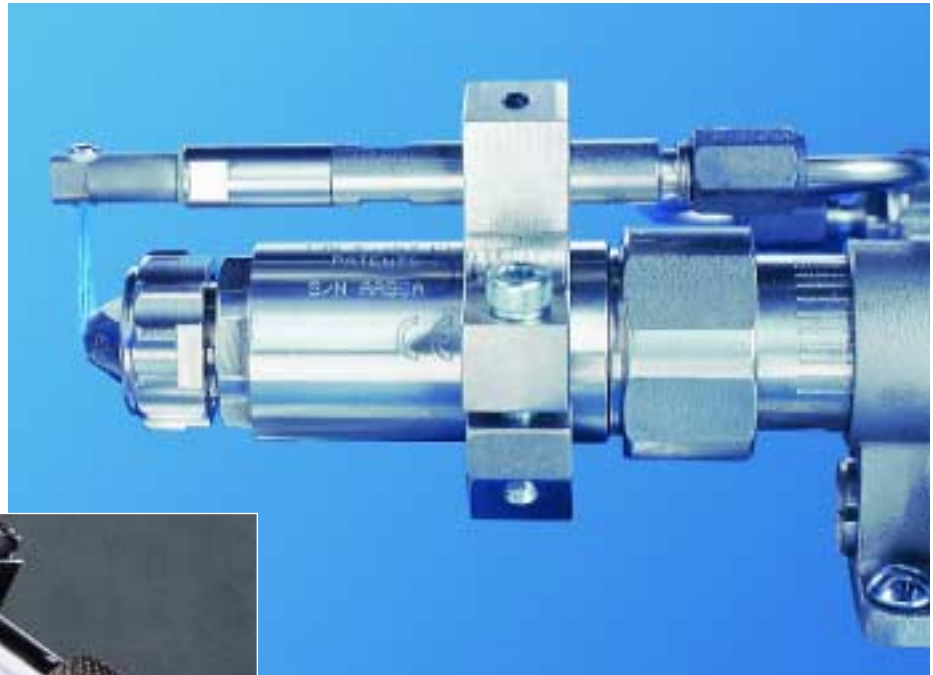


CleanSpray® Automated Nozzle Cleaning Systems



Clean airless spray nozzles automatically for improved coating quality and increased productivity.



CleanSpray II



Standard CleanSpray

During the internal coating of two-piece cans, oversprayed coating material can accumulate around the nozzle of the spray gun. This material build-up can partially plug the nozzle, and dried coating on the nozzle can detach and be deposited in the can. Both of these conditions can lead to unacceptable coatings and increased rejects. To prevent this, nozzles must be cleaned frequently, which requires shutdown of the coating line and interrupted production.

The patented Nordson® CleanSpray Systems automatically clean airless spray nozzles quickly and effectively. Two system configurations are available to meet your installation requirements – both clean nozzles during production, without

turning off the spray machine. The innovative systems spray a low-pressure, short-duration mist of water or solvent (depending on the coating material) directly on the nozzle. The process washes away excess coating between lacquer sprays.

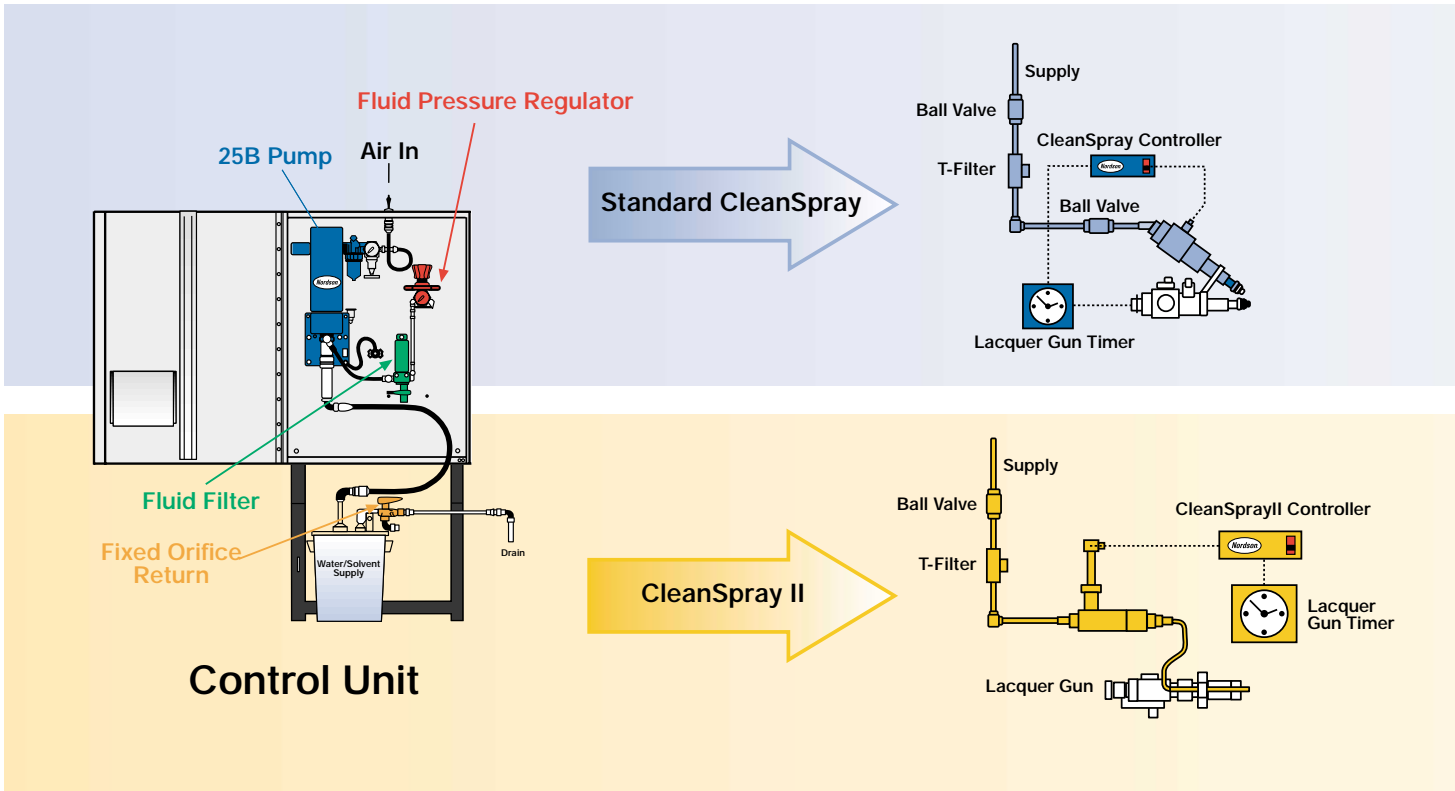
Flexible Spray Programming

Nordson CleanSpray Systems can be programmed to clean the nozzles at whatever interval is best for your operation. The systems can spray after each can is coated or up to every fifteenth can. In most cases, nozzle cleaning by hand can be reduced to only once per shift. In fact, the CleanSpray System has allowed some operations to run more than 24 hours before requiring manual nozzle cleaning.

The systems can also make exhaust hardware easier to clean. The water or solvent sprayed by the system slows the drying of overspray coating material that collects in the exhaust chute. The material stays softer, so it can be wiped from the equipment more easily.



Typical System Configuration



System Operation

CleanSpray Systems are designed for simple retrofit to existing spray lines. Two system configurations are available to meet most any installation requirements. The standard CleanSpray system incorporates a cleaning gun that mounts on the lacquer spray gun. Using the adjustable mounting bracket, the gun is positioned to spray directly onto the lacquer spray nozzle.

The CleanSpray II system includes a compact, durable spray gun with a mini check valve extension on the nozzle. The extension is held in position by a mounting bracket connected to the inside spray gun, allowing for a more open spray area. The compact, durable gun cycles pressurized water through the extension for accuracy and repeatability at high speeds.

With either system set-up, a typical installation uses less than one fluid ounce of water per hour for each gun.

CleanSpray Controller



The cleaning guns are triggered by the CleanSpray controller, which integrates with the timing mechanism of the lacquer spray gun. The process-control system receives the

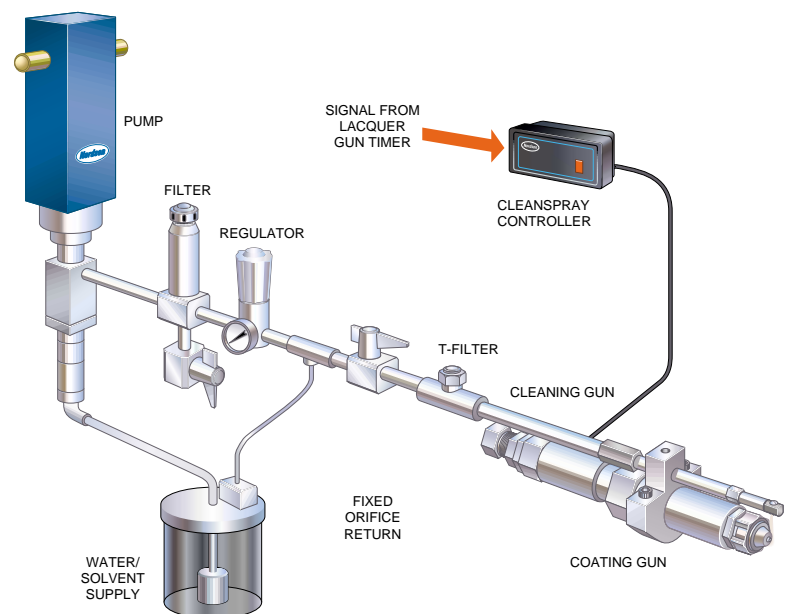
lacquer gun firing signal, which activates a user-selectable spray indexer. The controller then signals the CleanSpray gun to fire after a selected number of lacquer sprays. The indexer is reset when a cleaning spray occurs.

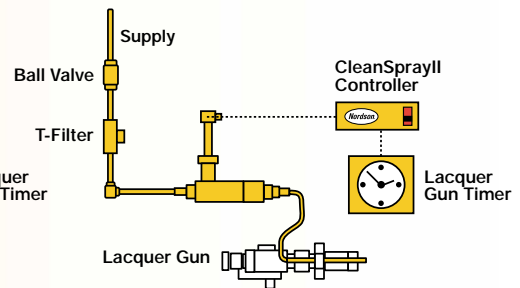
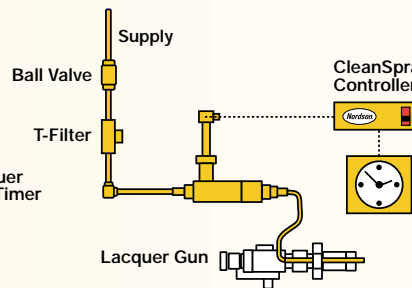
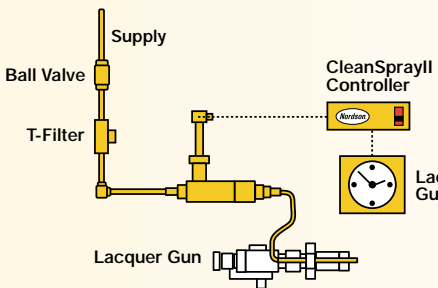
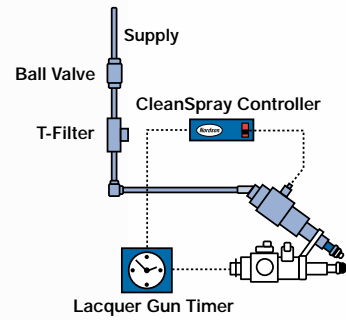
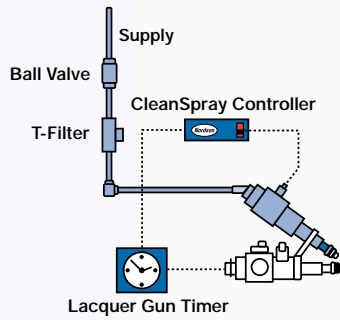
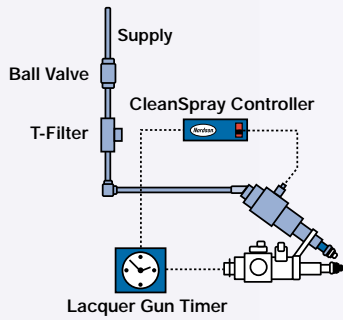
The CleanSpray controller is triggered on the start of a lacquer spray, but it will not initiate a cleaning spray until the lacquer gun

signal is off. This prevents the cleaning gun from firing during the lacquer spray.

Spray duration and delay can also be selected. In addition, the system is designed to restrict operator access to prevent unauthorized adjustment of the timer settings.

The controller is programmed to trigger a nozzle-cleaning spray after the last can has run through the spray machine. This assures that excess coating material will not remain on the lacquer nozzle during interruptions in production.





Cleaning materials are supplied to the gun by a Nordson air-operated stainless steel pump. The pump features a mechanical air valve for reliable, fast cycling. Hard chrome wear surfaces provide long service life. A filter and fluid pressure regulator are also included with the system.

Nordson Tapered Nozzles

Nordson tapered nozzles are ideal for use with the CleanSpray systems. Designed to reduce coating material costs for two-piece can coating operations, Nordson tapered nozzles help can manufacturers attain maximum efficiency, dependability and product quality in coating operations.

CleanSleeve® Gun Covers Further Reduce Clean-Up

Cardboard sleeve gun covers often provide inadequate protection from overspray. The cardboard shields only partially guard the gun body and offer no protection at all for the rest of the gun.



Nordson CleanSleeve gun covers provide a simple, inexpensive way to protect the entire gun – from the nozzle nut to the gun body – from coating overspray. CleanSleeve covers are fast and easy to replace, and are custom-fit for Nordson airless spray guns.

The disposable CleanSleeve gun covers provide far better protection than cardboard shields, and they last a full shift before they need to be replaced. This can reduce labor while keeping guns cleaner, longer.



Technical Specifications

CleanSpray Guns

Working Hydraulic Pressure: 35 bar [3500 kPA] (500 psi)
Operating Temperature: 140°F (60°C) maximum
Electrical for Coil: STD CleanSpray Gun – 24 Vdc, 1.5 amperes
CleanSpray II Gun – 24 Vdc, 1.2 amperes

CleanSpray Controller

Operating Temperature: 140°F (60°C) maximum
Electrical Requirements: 120/140 VAC, 50/60 Hz, single phase
Electrical Input Signal: 50 Vdc maximum
Electrical Output Signal to Gun: 20 Vdc, 1.2 amperes

CleanSpray Level Detect

Operating Temperature: 140°F (60°C) maximum
Electrical Requirements: 100, 120, 215, 230 or 240 VAC, 50/60 Hz
Electrical Output Signal: 24 Vdc

Hydraulic Delivery System

Filter	Operating Pressure	206 bar (3,000 psi)
Regular	Inlet Pressure, maximum	689 bar (10,000 psi)
	Outlet Pressure, maximum	103 bar (1,500 psi)
	Fluid Ports Size	1/4 in. NPT
Pump	Operating Fluid Pressure, maximum	103 bar (1,500 psi)
	Air Requirements	0 - 5.5 bar (0-80 psi) 3.54 L/sec (7.5 cfm)

Nordson reserves the right to make design changes to products to improve their function. These changes may occur between printings.

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