

Spray Pressure Control System



Individual spray gun pressure control for consistent inside-spray film weights.

Controlling and maintaining consistent inside-spray coating weights is an important requirement of the can manufacturing process. Inconsistent application parameters waste coating material and can lead to quality problems, such as high metal exposure.

One way to control coating weights and quality is to maintain consistent hydraulic pressure within the fluid system. With most inside-spray systems today, the fluid pressure is adjusted only at the pump. So with multiple-gun spray systems, this results in different operating pressures for each gun in the system.

Other factors, such as the pump operation and the opening and closing of guns in the spray circuit, can also cause hydraulic pressure fluctuations. This can lead to wide variations in spray weights.

The Nordson Spray Pressure Control System provides hydraulic pressure control for each spray gun. The system also eliminates fluctuations caused by the pump and other guns in the spray circuit.

Consistent spray pressures can improve the operating efficiency of the spray system. Coating weights are accurately controlled to minimize variation. Lower spray pressures can be used for a



The Nordson Spray Pressure Control System includes a circulation manifold, three-way ball valve, pressure regulator and mounting brackets.



Actual coating weight ranges with and without pressure control.

cleaner, more efficient operation. The increased efficiency can result in significant coating material savings, lower VOC emissions and reduced clean-up and maintenance.

Process control and product quality can also be improved. The optimal spray pressure can be maintained for each gun in the system. In addition, pressure can be reduced on individual guns to compensate for nozzle wear and to maintain proper coating wraps.

The Spray Pressure Control System is designed for easy retrofit into existing hydraulic systems. Major components of the system include:

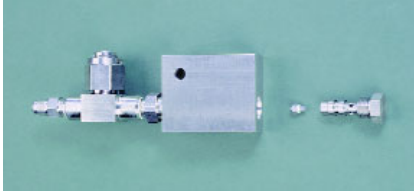
- an accurate, production-proven pressure regulator with mounting bracket and gauge;
- a specially designed circulation manifold with a fixed orifice and in-line filter, and
- a three-way ball valve, which facilitates cleaning and flushing of the hydraulic system.

All wetted parts are constructed of stainless steel and other corrosion-resistant materials. One Spray Pressure Control kit is required for each gun in the fluid circuit.

Spray Pressure Control System

Features and Benefits

- Supplies equal fluid pressure to each spray machine for consistent coating weights and material savings.
- Minimizes pressure drops caused by pumps and other guns in the series for improved process and quality control.
- Independent pressure control for each spray machine allows adjustment of optimum spray pressure for each gun.
- Lower spray pressures can be used for material savings, reduced VOC emissions and reduced clean-up and maintenance.



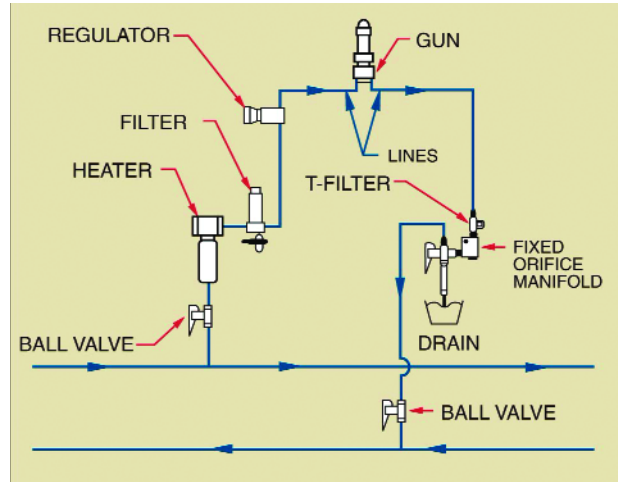
The circulation block orifice can be easily changed to accommodate different flow rates.

Specifications

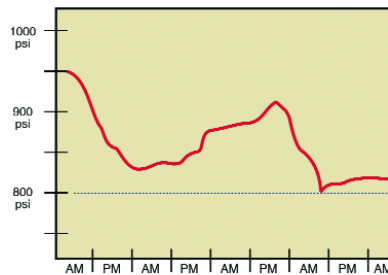
Maximum operating pressure:
1200 psi (8250 kPa)

Maximum flow capacity per regulator
@ 500 psi (water): 1.0 GPM (3.8 l/min)

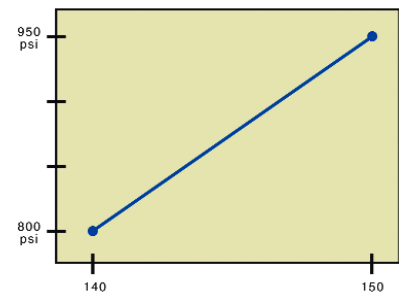
Filter screen size: 230 micron



The Spray Pressure Control System is designed for ease of installation to existing spray systems.



Actual spray pressure fluctuates based on the number of guns in operation during production.



Using a .09 GPM nozzle, dry coating weights increase approximately 15 mg for hydraulic fluid pressure increases of 150 psi.



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

For more information, talk with your Nordson representative or contact your Nordson regional headquarters office.

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