Nordson Filter Solutions

Adhesive Dispensing for Pleating, Potting and Bonding Applications in Industrial and Consumer Filter Manufacturing

Air Filtration ■ Automotive ■ Fluid
The need to produce consistent, quality filters as cost-effectively as possible is a constant challenge. Whether for applications such as residential water treatment, automobile oil or industrial dust collection, filters must be able to perform in their intended application and environment. To meet the performance specifications, filters must be manufactured using accurate and consistent production equipment.

Nordson adhesive dispensing equipment delivers precise, reliable application and also helps you optimize material use in manual, semi-automated or automated processes. As the media, frames and housings used in filter manufacturing encompass a wide variety of substrates, including plastics, metals and paper, an array of dispensed materials is needed for a finished filter. Nordson’s vast product family provides solutions for virtually any adhesive and sealant material and produces a broad range of solid or foamed patterns. Whether intermittent or continuous, contact or non-contact application, Nordson dispense technology has the solution for you.

Extruder Technology
Nordson extruder systems are designed for efficient operation while protecting material integrity. The closed systems protect material from ambient air to prevent degradation and development of char. Combining lower operating temperatures with true melt-on-demand technology reduces thermal stress on material, helping protect bonding characteristics for improved finished product quality. The extruders operate efficiently with heat-up in 25-30 minutes; this is more energy efficient and contributes to reduced heat stress on system components and consequently less system maintenance and lower operating costs.

Tank Melter Technology
Nordson tank melters offer accurate thermal control for consistent, uniform material application. VersaBlue® tank melters use a grid and reservoir design for easy processing of a wide range of adhesives. And, Nordson melters provide simple installation, daily operation and maintenance. The graphic touch-screen control displays status of tank, hose(s) and gun(s).

Foaming Technology
The Nordson family of foaming systems uses a patented process to combine ambient or heated adhesives and sealants with inert gas to create a closed-cell foam. The resultant foamed materials often display superior physical properties than solid materials while reducing adhesive consumption up to 50%. And, Nordson foaming systems easily integrate into most existing production lines for pleating, potting and end cap applications. Foamed adhesives are also a cost-effective substitute for two-component materials for some potting and assembly applications.

Gun Technology
Nordson offers a wide variety of dispensing guns to accommodate virtually any material used or pattern required. Development and consistent application of the right pattern helps you use the least amount of adhesive while maintaining the highest product quality. From tiny individual dots to wide laminate films, Nordson has a diverse range of single or multiple module options to meet your production needs. Specially-designed, rugged guns are also available for use with high-temperature or chemically-aggressive materials.
End Products/Uses
Automotive air filters
Automotive oil and fuel filters
HEPA/ULPA filters
Residential and industrial HVAC filters
Industrial canisters
Mining and agricultural filtration
Vacuum cleaner canisters
Water reverse-osmosis
Water ultra-filtration

Applications
Air filtration frame-to-bag attachment
Air filtration mini-pleating
Automotive fuel/oil seam sealing
Edge banding
End cap potting and molding
Filter bag assembly
HVAC and component gasketing
Media frame potting

Benefits of Foamed Adhesive:
• increased open time
• faster set time
• volumetric increase
• reduced adhesive consumption
• increased penetration
• improved wetting
• lower heat density
• reduced sagging or running

Nordson dispensing technology benefits most aspects of filter manufacturing.

Five-year old extruder hopper displays no char or build-up.

Foam produces either twice the volume but the same weight or the same volume at up to half the weight of solid material.
Package of Values®

Nordson solutions are designed to provide consistent, high-quality manufacturing processes while improving production efficiency. Locally-available industry specialists and service technicians backed by a global team of knowledgeable engineers and 24/7 support staff help you develop, install and maintain dispensing solutions for established or emerging filter applications. Our people are supported by an infrastructure that includes research facilities, test laboratories and parts distribution warehouses in locations throughout Europe, Asia and the Americas.

The Green Commitment

Nordson has a long history of designing equipment that maximizes productivity and minimizes waste. As most of our customers are manufacturers of a wide variety of consumer and industrial products, helping them more efficiently use materials and processes ultimately helps us all. Faster, more efficient production allows manufacturers to better utilize equipment, both reducing consumption of energy to produce each piece and increasing equipment utilization. Additionally, more controlled, efficient production can reduce scrap and waste generation.

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