

# Flow-Through-Felt Dispensing System

**Flow-Through-Felt automated primer system dispenses two-part primer to deliver superior film builds for optimum quality and performance.**



## Features and Benefits

- Felt spool applicator tool ensures consistent film build and repeatable location for dependable results and increased quality.
- Automated process removes operator interaction with primer materials.
- Bulk material supply monitors and circulates primer, as appropriate, to ensure consistent application and material integrity.
- User-friendly, touch-screen PLC interface provides for system set-up and adjustments, system status and complete system diagnostics.
- Built-in compliance results in superior film builds.

The Nordson® Flow-Through-Felt primer system robotically applies both clear and black primers. The system's patented dispense head provides complete, uniform coverage and is ideal for applications requiring a minimum film build for optimal adhesion and long-term durability.

The standard Flow-Through-Felt system consists of a clear and black bulk delivery system, an applicator tool with pneumatic valve pack, and a system controller.



## How It Works

- Two spools on the applicator tool “supply” and “take-up” the felt used in the primer application process.
- The felt works like an ink marker and applies primer to the substrate in the specified width and film thickness.
- Clear primer is first applied in this method to the perimeter of the glass.
- The direction of the tool or the substrate is then reversed, and the black primer is applied in the same method.
- The felt is indexed during operation, so that clean felt is always available for the next application of primer.
- The applicator can also be configured to dispense only clear or only black primer.

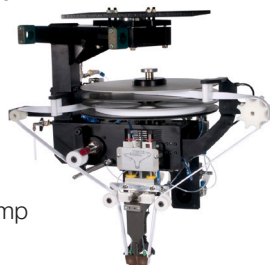


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## Applicator Tool

A felt spool is loaded into the applicator, traced from the supply reel over the dispense modules back to the take-up reel. After each dispense cycle the felt is indexed, presenting a clean piece of felt for the next part for improved quality. The felt also keeps moisture in the air from making contact with the dispense valves to minimize maintenance and downtime.

- Positive-displacement metering pumps provide accurate point of dispense control of material flow. A proximity switch provides volume monitoring and confirms pump to air motor integrity by monitoring pump rotation.
- Pump inlet transducers monitor primer supplies, confirming sufficient material delivery to the applicator tool. Outlet transducers prove unobstructed material flow from metering pumps to the felt.
- Metering pump solvent flush valve eliminates risk of material curing in pump.
- A pneumatic slide ensures compliance to the substrate in the “z-axis”. This provides consistent felt to glass contact pressure.
- End-of-travel proximity switches on the slide confirm “felt on glass” and “felt over-compressed” conditions.
- Nordson zero-cavity dispense valves reduce buildup of moisture curable primer. Separate valves are used for clear and black primers.
- Rub blocks are made of composite material that resists surface abrasion and material adhesion. Compliant mounting to the dispense valves assures uniform felt to glass contact.

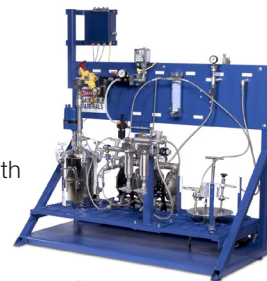


This level of compliance, along with the accumulation effect provided by the felt, results in superior film builds that meet and exceed most material supplier recommendations.

## Delivery System

A double-acting diaphragm pump delivers an uninterrupted flow of black primer to the applicator tool, while providing continuous recirculation through the system to prevent sedimentation. A second diaphragm pump is utilized to deliver clear primer.

- Bulk material supply is monitored with a level sensor for the clear, and a load cell for the black primer.
- Regenerative air dryers ensure compressed air moisture doesn't interfere with primer integrity or process quality.



## System Controller

- The Flow-Through-Felt primer system controller provides operators and plant personnel with a user-friendly PLC interface.
- Controller monitors and controls the function of both the applicator tool and delivery system.
- Touch-screen display provides for system set-up and adjustments, system status and diagnostic information.
- Multiple part IDs can be used to establish dispensed volume set points for a variety of part styles.

## Specifications

Dimensions		
Delivery System:	Height	62.0 in (157.5 cm)
	Width	60.0 in (152.4 cm)
	Depth	40.0 in (101.6 cm)
Control Panel:	Height	60.0 in (152.4 cm)
	Width	32.0 in (81.3 cm)
	Depth	12.0 in (30.5 cm)
Applicator:	Height	24.0 in (61.0 cm)
	Width	31.5 in (80.0 cm)
	Depth	22.0 in (55.9 cm)
Weight		70 lbs. (31.8 kg)

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