Nordson offers canmakers a completely integrated solution that combines spray monitoring, timing control and spray pressure control into one system – the iTrax Spray Monitor and Control System. As a result, manufacturers can automatically monitor and control the inside spray process from one single operator interface location.

This comprehensive system has 10 years of proven production success, with 1,460 units installed in more than 135 can manufacturing lines.

Canmakers worldwide – including Crown Cork & Seal, Ball Packaging, Rexam, Metal Container Corporation (Anheuser-Busch), Impress and Silgan – are using the iTrax Spray Monitor today and are operating at 15 to 25 percent lower average coating weights.

Continuous innovation to meet customer needs

The iTrax System was originally introduced as a Spray Monitor (SM) for two-piece inside spray applications, which enabled manufacturers to reduce their average coating weights by operating at the lower end of the required film weight specification. The Spray Monitor monitored every can that was sprayed to determine if the coating was above or below customer-selected limits. If so, the Spray Monitor turned-on a relay, and would either stop the spray machine or activate a beacon light to alert the operator/maintainer.

In addition to the Spray Monitor, customers routinely lowered average coating weights by using the Nordson MEG® II spray guns, Spray Pressure Control (SPC), and cSelect™ controlled pattern nozzles. This also allowed can manufacturers to lower their spray pressures, going from 800psi to 600psi or lower. The result was less “blow-back” overspray, increasing material savings and a providing cleaner operation.

About 3 years ago, the iTrax System was expanded to include the Spray Controller (SC) and the Pressure Control (PRx) modules. These enhancements provide greater capabilities for monitoring and controlling certain parameters and system components.

iTrax Spray Controller (SC)

The iTrax Spray Controller (SC) consists of a timer and driver for the spray gun. Timing is set through the graphical interface of the Operator Control HMI as a part of the SC software. There are no mechanical knobs, thumbwheels or potentiometers to adjust as with other timers.

The SC provides selectable drivers for either the Nordson MEG-type guns or A20A and A10A guns. This is accessed via the software and the operator control panel, not by adjusting a potentiometer on a circuit board as with other gun drivers. In addition, the SC offers:

- Drivers designed by Nordson for optimal performance of Nordson spray guns
- Timing and driver functions for the CleanSpray® system, which is used to automatically clean the lacquer nozzles.
- A recipe function can be used in the SC system, allowing users to select the timer settings needed for coating different types of cans.
- When selecting a specific recipe, all of the spray machines in a line can be set with one button from the operator control panel.
The iTrax Pressure Control (PRx) module

The iTrax Pressure Control (PRx) module allows can makers to adjust and monitor several different parameters in the spray area. Spray pressure can be automatically adjusted and controlled from a single location – the operator control panel. This eliminates the need to manually adjust the knobs on each pressure regulator for the SPC system in the spray line. In addition:

- Recipes can be created and stored for the pressure settings to be used
- Spin-speed of the cans, vacuum pressure on the chucks, gun ready position, and temperature at the spray gun can also be monitored.
- The functions are all configurable and can be mixed and matched (each function requires additional sensors and hardware).

iTrax Features & Benefits

- Single “bad can” detection, immediately at the spray machine.
- Enables efficient, high-quality inside spray of cans at lower film weights.
- User-selectable operating parameters resulting in highly flexible and configurable system.
- Fault conditions categorized into severe (alarm) and potential (warning), with individual relays for each condition. Thus, a warning condition could alert personnel to check the system (via a beacon light) and an alarm condition could stop the machine.
- Can counter-based reminder messages alert a maintainer to take specific action (for example, change a nozzle) after customer-selected cans sprayed.
- Monitors gun open and close times to indicate proper operation of spray gun.
- Compares actual timer output to actual gun on-time.
- Maintains a cycle count and calculates operating rate for each spray gun.
- When a fault condition is detected, the corrective action must be entered into the system. This data is stored as a fault history, which is useful in evaluating the performance of the inside spray system and in future trouble-shooting of the system.
- Multi-language capability.

For more information on the new iTrax® Spray Monitor and Control System, contact Nordson today at 1.440.985.4000 or www.nordson.com/container.