

Demonstrates importance of Static Control at NPE



Meech International will highlight its hugely successful 977CM Pulsed DC controller — the first true closed-loop Pulsed DC static control system — on booth 608 at NPE, Orange County Convention Center, Orlando.

Meech's comprehensive range of static control products can help businesses improve quality and productivity on their slitting, rewinding, packaging and converting lines. Since introducing Industrial Pulsed DC technology to its portfolio more than 15 years ago, Meech has supplied more than 5,000 systems to these industries, making it the clear leader in this field.

“Uncontrolled static is often overlooked as a cause of product contamination and unanticipated downtime in the slitting, rewinding and converting industries. Because most converting processes involve high speed webs of material, static charges are an inevitable side effect. They only become a problem, however, when they're uncontrolled and lead to lost production,” explains David Rogers, Business Unit Director – Static Control.

Static can be generated on a converting/package line in a number of ways but in particular it can be produced by the friction caused by the converting process. This is made worse by modern high speed machinery. Charges are almost always generated as the substrate leaves the reel and travels through the first converting stage—often by a relatively simple procedure such as slitting it down to narrower widths.

During rewinding, static can affect the tension so much that contact, or even close proximity, with other surfaces results in contamination by dust and dirt. It has been known for the web core to be crushed or fall out altogether because the tension of the web has become so extreme.

The 977CM Pulsed DC controller is the ideal solution for problems such as these due to its combination of high power static control and advanced self-monitoring features.

A key component in any static control system installed on a production line is the ionising bar. The 977CM continuously monitors output from the ionising bar and automatically adjusts the input voltage to compensate for any adverse effects of contamination. Once the bar's voltage has been adjusted to its maximum level (typically +25%), further contamination will lead to a deterioration in performance. The 977cm will detect this and alert the operator that the bar needs cleaning.

“It is vital to ensure that the ionising bar remains contamination free. If the bar is allowed to become too dirty, it will be unable to neutralise static charges, and problems on the line will occur. The benefit of the 977CM’s current monitoring system is that it can detect when the bars are becoming contaminated and adjust its output. This ensures good performance as well as prolonging the time between cleaning,” explains David. “It will also forewarn the machinery operator when cleaning will be required so that they can accurately plan their production schedule. In addition, data can be collected and transmitted to allow remote monitoring and logging for quality assurance purposes.”

For even greater accuracy, an optional sensor bar detects residual voltages on web paths and rewinds and communicates with the 977CM unit to instruct it to tune its output. This ensures the best possible charge neutralisation for the current operating conditions.

“NPE is a great show for Meech to demonstrate the importance that the 977CM can play in the packaging, slitting, rewinding and converting industries,” comments Matt Fyffe VP/General Manager of Meech Static Eliminators USA Inc.” He continues, “We are looking forward to making contact with businesses that will genuinely benefit from our static control technologies.”