16 STATIC ELIMINATION

Emitting pin design sharpens removal of static charges

UK agent **Webtek** explains the principles behind a new static neutralising system by **Hildebrand Technology**

GERMANY/UK

Hildebrand pinpoints static

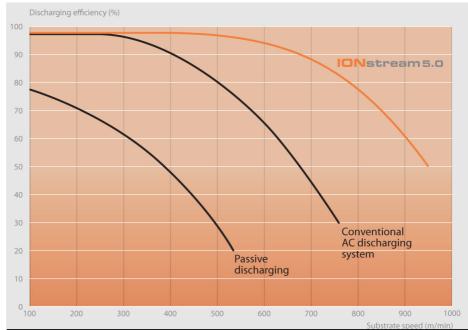
T IS well known amongst converters that insulating materials such as paper, film or laminates, generate static charges during production processes. These charges will cause problems in the process concerning safety, particle attraction and therefore surface contamination as well as process problems due to the static forces.

Hildebrand Technology's IONstream 5.0 is a heavy duty, industrial quality, high performance static neutralising system that is claimed to provide efficient static charge neutralising at a very cost effective price. The system utilises the latest shockproof technology with resistors located in front of each high voltage emitter point. A 10mm pin pitch combined with active discharging power and long neutralising distance makes IONstream 5.0 a serious competitor in the market.



Latest emitter pin technology

The "Long Life" emitter pin technology (pictured) continuously sharpens the pins during the ion emitting process. This pin 'self



System discharging efficiency comparison)

healing' process massively increases the lifetime of the emitter points and is said to 'guarantee' constant high performance during its full life cycle. The neutralising bars are connected by a flexible high voltage cable to the high voltage power unit. Positive and negative ions are produced by the emitter points at a frequency of 50 or 60 Hz depending on local AC supply frequency. As the system is capable of producing positive and negative ions it will neutralize the substrate surface electrostatically regardless of its charge polarity.

Principle of function

By applying alternate positive and negative high voltage current to the emitter pins, ions of both polarities are generated. IONstream 5.0's narrow pin pitch and special pin material generates substantially more ions over the same time frame and provides a much more homogenous electrostatic field when compared to conventional alternating current method neutralising systems. The highly efficient pin shape and its sharpness is maintained during the full life time of the neutralizing bar. The special alloy ensures a process of wearing that 'self heals' the pin tip. The pin tips stay sharp to guarantee constant ion emitting power. Our revolutionary design of the static neutralizing bar is constructed with a special aluminum extrusion incorporating non metallic side shields which work in harmony with the electrostatic field of the emitter pins. The result of this revolutionary design is an effective neutralising range of up to 200mm.

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