

Hildebrand Technology/Gema Switzerland GmbH

A three-fold technological edge for process reliability and quality

With its three technologies – Xstream, iONstream 4.0 and iONcontrol – Hildebrand Technology offers a holistic system for modern production processes in the converting industry. Working in tandem, they ensure maximum efficiency, reproducible quality and complete process control.

iONstream 4.0 – Advanced electrostatic discharge

The iONstream 4.0 discharge system has established itself as a high-performance and reliable solution across a wide range of industrial applications. Users from international corporations also confirm that the system – particularly in combination with the integrated CAN bus network and the ATEX-compliant version – ranks among the most advanced ionisation solutions on the market. The discharge bars are characterised by their robust construction and high, long-lasting performance, even under the most demanding conditions. Thanks to fully integrated components, including a high-voltage generator within the profile, there is no need for external high-voltage cables – a significant contribution to operational safety.

Key features include:

- » AUTO DC Technology up to 100 Hz for optimum discharge performance
- » 24V DC power supply with fully integrated high voltage
- » Extremely high active power for demanding applications
- » CANbus network capability for networked systems
- » Plug & Play installation for rapid commissioning
- » 100% process control through continuous data acquisition
- » ATEX-certified variants for potentially explosive atmospheres

Thanks to these features, iONstream 4.0 provides a stable foundation for reproducible and safe production processes.

Xstream – Efficient, contactless web cleaning

The Xstream web cleaning system has proven its worth over decades across a wide range of industries – from cleanrooms to demanding applications in the production and processing of foil, film, paper and non-woven fabrics. The system operates entirely contact-free, requires no consumables and is virtually maintenance-free. Even at high web speeds and under heavy dust loads, Xstream consistently achieves high cleaning performance.

A key factor in its success is the coordinated overall concept:

- » Pre-discharging of the material using iONstream 4.0
- » High-performance vacuum system for particle extraction
- » Efficient filter systems for sustainable operation

Xstream has already been successfully implemented for material widths ranging from 300mm to 12,000mm and is therefore suitable for a wide range of industrial applications.

The option to integrate the system into a network also allows for the monitoring of:

- » Vacuum level and system performance
- » Position of the Xstream extraction modules
- » Efficiency of individual iONstream 4.0 discharge bars

This ensures consistently high cleaning quality and process stability.



iONstream 4.0



Xstream



iONcontrol – Intelligent process monitoring and control

With iONcontrol, Hildebrand offers a central platform for the visualisation, analysis and control of all relevant system parameters. The system provides real-time transparency and enables data-driven optimisation of production. Users benefit from:

- » Visualisation of all system data
- » Comprehensive data acquisition and logging
- » Interface to OPC-UA
- » Integration of sensor technology, e.g. for measuring residual charge

iONcontrol offers significant added value, particularly in the context of rising quality requirements and compliance obligations. Production parameters are documented in a traceable manner and can be used for quality assurance purposes vis-à-vis end customers.

System solution with measurable added value

It is only through the combined use of iONstream 4.0, Xstream and iONcontrol that the full technological advantage is realised.

- » iONstream 4.0 reliably eliminates electrostatic charges
- » Xstream removes particles efficiently and without contact
- » iONcontrol ensures transparency and seamless monitoring

This integration enables:

- » Maximum process stability
- » Consistently high product quality
- » Reduction in scrap and downtime
- » Full traceability of all relevant parameters

For users, this means a future-proof solution that meets the increasing demands for efficiency, quality and digitalisation.



www.hildebrand-technology.com

Image source: Gema Switzerland GmbH

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Non-Stick



Low-Maintenance



High Thermal Conductivity

WEROSIL-TTC
Roller Covering for NIP-Rollers



Is it possible to remove melt residues from the roller surface without damage?



YES, due to the excellent non-stick property. Cleaning is carried out without leaving any residues.

TECHTIP NO. 4