

eBOOK



LEADERS IN LABELING



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Indeed, every new situation presents new opportunity, and 2020 has proven to present both across the globe. With the trend of eCommerce packaging continuing to rise, so too does the consumer demand for speed and convenience with new packaging and labeling options. Labeling companies have not fallen short and are continuing to respond to meet the new challenges presented. By utilizing research and providing new innovations across the market, they are helping lead the way in providing new labeling opportunities, guiding customers in utilizing more sustainable options to develop smarter, more responsible, and more efficient strategies with anticipating consumer needs.



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Editor

Surface treatment for labels

Evolving technology in a changing market

Anyone who has tried to write on plastic and then rubbed the ink with their finger or thumb will immediately understand the major problem that faced the package print industry in the years that followed World War 2. The need for surface treatment to improve the adhesive quality of ink and lacquers on plastic surfaces, which was established back in the 1950s, led to the invention and development of what has become universally known as Corona treatment. It was the brainchild of a Danish engineer, Verner Eisby, whose company Vetaphone has continued to pioneer the technology in the intervening years.

Today, the company, which is under second generation ownership/management, remains at the forefront of surface treatment knowledge and expertise with a market share in the narrow web sector in excess of 80%. But while the problem of ink and lacquer adherence remains unchanged, the technology required to achieve optimum results has changed consider-



Vetaphone Corona and Plasma units are at the cutting edge of today's surface treatment technology

ably, as Vetaphone CEO Frank Eisby explained.

“The problems facing narrow web converters now require a greater degree of understanding if the surface treatment applied is to be effective in today's increasingly sophisticated market. Far from ‘buy, install, set, and forget’, surface treatment has become as integral to quality production as any other part of the printing process, and to ensure you are using it correctly, you need to understand its operational parameters.”

To simplify matters, Eisby splits the process into three

clearly definable requirements. First, there is the need for simple Corona treatment, and this applies to virtually all narrow web press applications. It will typically require a Corona unit to deliver a power rating of 1.5 – 2.0 kW and provide excellent performance on standard substrates run off at low to medium speeds.

The second section has been created by the development of new and more difficult substrates. These are run off on the latest generation of narrow web presses that have been optimised by manufacturers for high speed production. These factors place an increased demand on the Corona unit to deliver the correct dyne level, which typically needs to be rated at 3.0 – 5.0 kW. To understand this concept, think of the similar situation with UV curing, where dwell time under the lamp, defined by power rating and running speed, are critical to achieving a complete cure.

The third and final section relates to those substrates that have been developed to produce what Vetaphone calls ‘unique’ labels, typically using special inks and lacquers, lamination, multi web applications and other techniques to produce sophisticated products. The chemical constituents of these substrates require a chemical treatment process as well as a



Frank Eisby, with his brother Jan, now runs the company his father founded in the 1950s.

physical one – and in these instances Plasma treatment is necessary to ensure bonding. Plasma should not be considered as a replacement for Corona, more as a logical development of technology to keep pace with the requirements of more sophisticated materials and processes.

Eisby concluded: “With print quality taken as ‘a given’ in today’s market, it is essential that converters appreciate the importance of what can appear to be a minor ancillary process. It’s only as ‘minor’ as expecting a performance car to run properly on low grade fuel. Converters need to wise-up on what all their technology can do for them – and not allow surface treatment to be the forgotten element.” ■

VETAPHONE
Corona & Plasma

For more detailed information or to discuss specific substrate applications, please login to: www.vetaphone.com

THE IMPORTANCE OF CORRECT
***SURFACE
TREATMENT***

As the inventor of the Corona technology, Vetaphone offers vast knowledge and experience with surface treatment and has an extensive portfolio of solutions for any type of application in the web processing industry.

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Vetaphone Corona treater for narrow web now available with 8 electrodes for higher power.
For more information contact Vetaphone at sales@vetaphone.com



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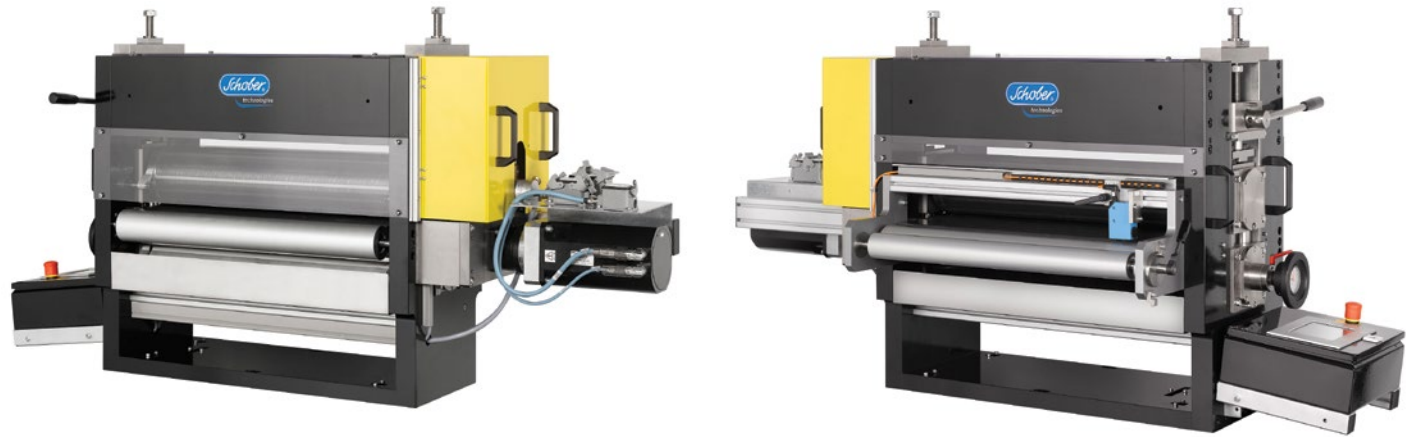
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Schober

For more than 60 years Schober has been leader in developing and producing rotary tools, modules and specialty machines widely used in label, film, foil, packaging, nonwovens and paper converting industries. This technically superior equipment is sold in more than 100 countries worldwide.

Schober label die cutting modules with working width up to 1000 mm and designed for production speeds of up to 350 m/min stand out, especially, for the modular line shaft driven machines as well as hybrid machine concept with individual drive technology. The innovative drive concept of the Schober die cutting module offers higher precision and flexibility due to a precise electronically synchronous run and digital servo-drives.

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quick change over times and offline set-up.

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▶ Video

Vetaphone Corona & Plasma

Vetaphone is renowned as an innovative supplier of Corona and Plasma surface treatment technology to the printing, converting, and extrusion industries.



DIGITAL PRINTING – DOES IT REQUIRE SPECIAL SURFACE TREATMENT?

While digital printing was a long way into the future when corona treatment was first invented and developed to help printers cope with the booming demand for printed plastics in the 1950s, the principle of combating surface tension to allow inks and lacquers to adhere to a range of uncooperative substrates, is just as relevant in today's digital age. We asked our VP Sales, Kevin McKell, to discuss and explain the requirements.

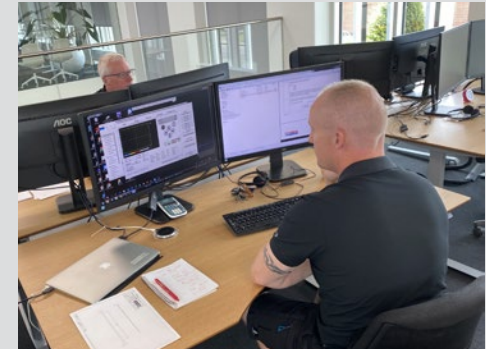
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CORONA SURFACE TREATMENT – THE WHAT, WHY, AND HOW

Jan Eisby, CSO of Danish pioneers Vetaphone, explains the background to a much used but frequently misunderstood process.

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ALL DONE BY REMOTE CONTROL!

The current global pandemic has had a major impact on everyone and every business. Few industrial sectors have come under greater pressure than that involved with producing packaging for the food and pharmaceutical markets, where demand has surged and placed extraordinary pressure on a supply chain that is working under very difficult conditions.

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