



Application Note



Thermal Transfer Overprinting Considerations for TTO integration into your form fill seal machines

The challenge

Integration of a coding solution into a form fill seal (FFS) line is something to be carefully considered. Integration challenges can be both physical, in terms of space and the need for mounting accessories, or software and communications-based. While the cost of a printer is a fraction of the investment in the overall packaging line, a misstep in selection of a coding solution can degrade the performance of the much larger investment.

The Videojet advantage

Videojet Thermal Transfer Overprinter (TTO) products have been engineered to make printer installation and operation as simple as possible. A pioneer in the industry with over 20 years of experience, we understand the nuances of integration and offer a variety of accessories to make it seamless. Moreover, we have a long history of design partnership with the major FFS manufacturers.

Videojet offers TTO printer and ribbon solutions that can help you keep pace with ever-increasing production volumes. And you can rest assured knowing that our solutions are backed by the largest field service network in the industry.

The importance of expertise and OEM partnership

Much goes into the selection and installation of an FFS machine. While your FFS equipment partner can walk you through the details of product specifications, it is equally important that your coding supplier understands the engineering and architecture of your machine for seamless integration. With over two decades of experience, Videojet understands these requirements. We partner closely with the major FFS original equipment manufacturers (OEMs) to help ensure machine compatibility and ease of integration into all types of FFS packaging equipment. Moreover, we design and build TTO products from the ground up with OEM input to help meet the increasing demands of their equipment and your operation.

Accessories and features for physical integration

Placement and printer footprint matter when integrating a TTO solution into an FFS machine. TTO printers are mounted directly onto the machine and therefore, a small form factor is required. For optimal operation, a printer should be installed after the dancers (the component that smoothes out the flow of the film), where the film is stable. This stability helps ensure high quality codes. After location is determined, it is imperative that the correct brackets are used to secure the printer to the FFS machine. For ease of integration, Videojet offers a wide range of brackets to accommodate varying FFS machines. Videojet also offers additional accessories such as sealed rubber rollers and platens, and extended cables for printer installations at variable distances, as may be required at some facilities.

Communications packages

Prior to advances in automation, printers did not communicate with the rest of the manufacturing line. Now, manufacturers integrate the printer user interface and control with the machine architecture and with their Manufacturing Execution Systems (MES). Recognizing the different machine architecture and MES varieties, the Videojet DataFlex® line of printers has a comprehensive communications package with many protocols supported as standard, including Serial, Ethernet and USB. It is also possible to control the DataFlex printer via the HMI or through a master/follower configuration with the OEM equipment. This provides customers with multiple connectivity and interfacing options.

Replacing an old printer

Considerations must also be made when replacing an old TTO printer with a new one. Aside from the time and labor needed to remove the old and install a new printer, codes must also be altered and re-entered into a new format. Ideally, a new printer can use existing brackets and code formats. This is true of the Videojet line of DataFlex® printers that are easily retrofitted with many FFS machines. Similarly, existing code formats from non-Videojet software packages can typically be downloaded directly to a Videojet TTO printer without modification to the message file, helping ease the transition and minimize concern regarding your code integrity.

Experienced support team for installation and beyond

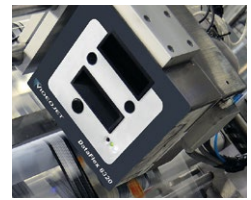
Understanding the intricacies of integration can make a big difference to success. For instance, even in a continuous motion FFS machine, the speed of the film is not constant. A small change in the speed of the film can affect print quality. Therefore, knowing the exact speed of the film is a critical input to optimize print quality at installation. Videojet is able to perform an encoder profile to understand the speed of the film down to the millisecond to help ensure the printer is set up for the best print quality.

The Videojet service and technical support team understands these intricacies and helps ensure that installation is done right the first time, either with your OEM or directly into your line. With a variety of service offerings available, you can have peace of mind that support will be available throughout the lifetime of the printer.

A solution for the long term

The success of a coding solution extends far beyond integration. The solution of choice must be reliable, easy-to-use and consistently print clean, correct codes. Systems that offer fewer wear parts and lower maintenance, along with precise ribbon control for optimal ribbon use, are ideal. Easy-to-change ribbon cassettes and longer length ribbon rolls help increase uptime and deliver more prints with fewer ribbon change-outs.

Beyond reliability and cost-effectiveness, operation of the TTO should be simple. For example, with the Videojet DataFlex® TTO, an intuitive touch screen interface and icon-based control deliver ease of use. Additionally, a WYSIWYG image display helps improve visibility and reduce entry mistakes. Enhanced Videojet software provides Code Assurance by reducing operator interaction and minimizing potential for human error.



The Bottom Line

Whether purchasing a printer for a new FFS line or an existing one, implementing high quality coding on your FFS line requires thoughtful planning. Videojet is ready to help you think through the ideal solution for your production line. We have the right hardware, expertise and relationships with major OEMs to help ensure your printers will integrate seamlessly into your packaging lines and that your coding process is perfectly suited to meet your business needs.

Ask your Videojet representative for more guidance, a production line audit or sample testing on your substrate.

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