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# Thermal Transfer Coding SmartDate® 5 Series



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# Summary



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- Technology
- Product Overview
- Range
- Accessories
- Software

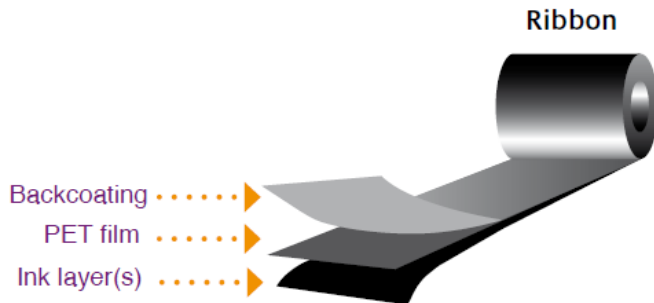
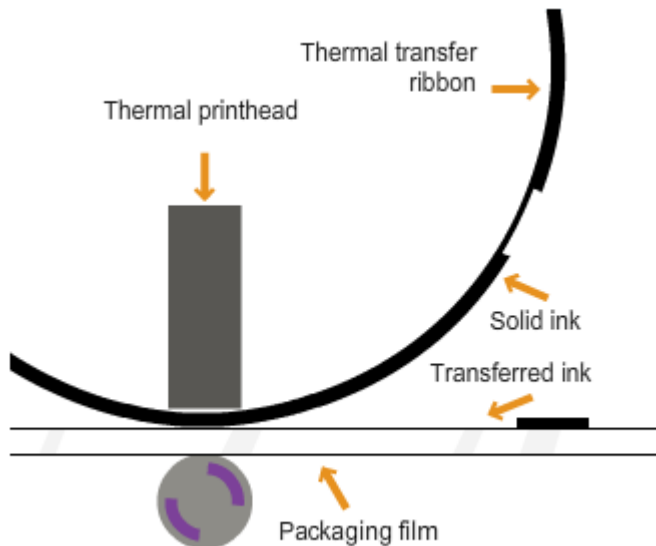


# Technology – How it works



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- Thermal transfer technology combines a thermal printhead and a polyester ribbon coated with ink on one side.
- Heat transfers the ink from the ribbon onto the packaging film that is marked as it passes under the thermal printhead.
- The thermal printhead is made up of a row of independent tiny resistors mounted on a ceramic support.
- The resistors are then activated, based on the characters to be printed, melting the ink on the ribbon and “transferring” the selected characters to the packaging film.



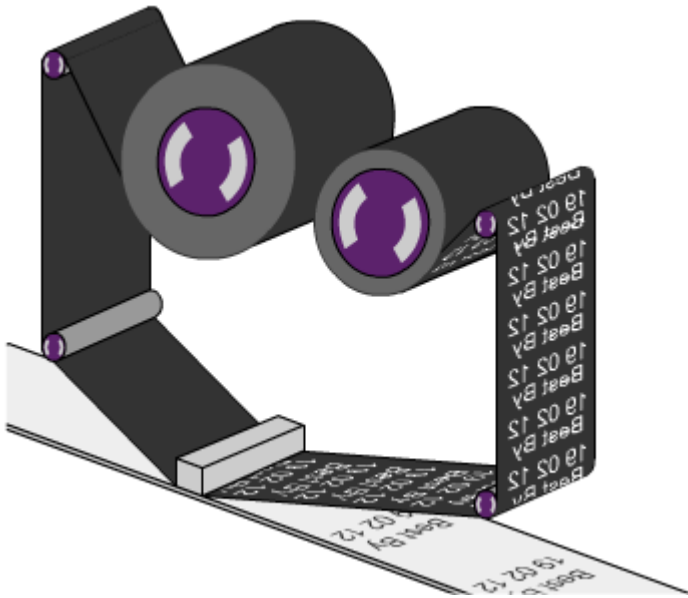
# Technology – How it works



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There are two types of thermal transfer coders depending on the application:

- **Intermittent mode:** Packaging film advances and then stops. The printhead lowers, moves along the packaging film and ribbon. The printhead prints. The printhead is raised, and returns to the home position; the ribbon advances and the process is repeated.

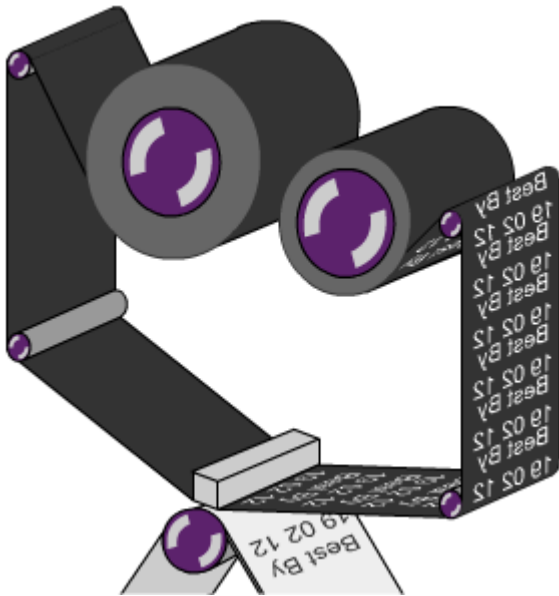


# Technology – How it works



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- **Continuous mode:** The packaging film is constantly moving. When triggered, the ribbon accelerates to the film speed, the printhead is lowered and printing begins. At the end of printing the printhead is raised to the home position and the ribbon stops moving.





## Simplicity meets Performance

- Color touch-screen or classic monochrome controller.
- Integrated or networked control options available.
- Switch from intermittent to continuous operation easily.



- WYSIWYG print preview displayed on color touch-screen.
- USB connectivity to download print images and collect coding data logs from standard memory sticks.
- Advanced digital color control enables the operator to set printer and production parameters including auto rolling of date and shift codes.

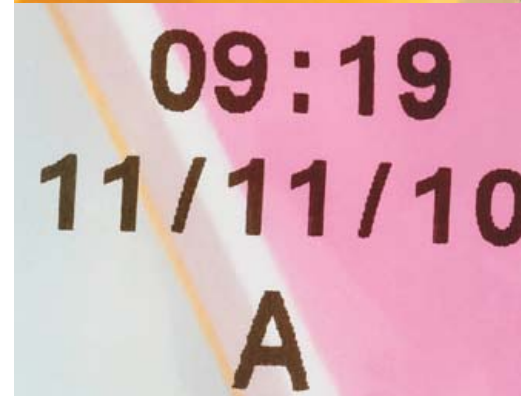


# Product Overview - Quality



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- **Highest quality printing at the fastest speeds on flexible packaging films, foils and labels**
- **Meets extreme substrate acceleration/deceleration challenges**
- **Prints at speeds as low as 5 mm/sec.**
- **Prints up to 1000 mm/sec.**



# Product Overview - Versatility



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## Flexibility, Speed and Versatility to meet your needs



### ■ SmartDate<sup>®</sup> 5:

- Intermittent: 53 mm x 75 mm (2.1" x 3.0")  
w/ speeds 55 to 700 mm/s
- Continuous: 53 mm x 150 mm (2.1" x 5.9")  
w/ speeds 5 to 1000 mm/s

### ■ SmartDate<sup>®</sup> 5s (shuttled):

- Continuous: 53 mm x 100 mm (2.1" x 3.9")  
w/ speeds 5 to 1800 mm/s



### ■ SmartDate<sup>®</sup> 5/128:

- Intermittent: 128 mm x 75 mm (5.0" x 3.0")  
w/ speeds 70-600 mm/s
- Continuous: 128 mm x 150 mm (5.0" x 5.9")  
w/ speeds 20-600 mm/s

# Product Overview - Performance



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Designed to meet customers' most demanding requirements



# Product Overview – Uptime



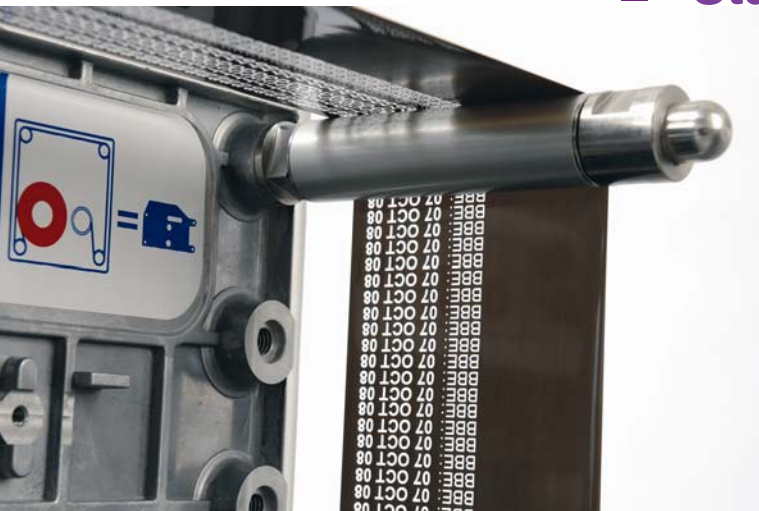
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Maximize Ribbon usage for greater **Uptime** and **Productivity**

- Industry leading 0.5 mm print gap, delivering more prints for the same length ribbon.



- Standard 1100 meter ribbon



- Fewer ribbon changes means longer **UPTIME**

# Product Overview – Ribbon Save



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## Interlaced mode ■ ■ ■

### Maximize ribbon usage:

- First print uses every other pixel; the second print utilizes the unused ink leftover from the first print

Without interlaced print



With interlaced print



Interlaced print



*Enlarged*

Ribbon - First print



Ribbon - Second print



# Product Overview – Ribbon Save

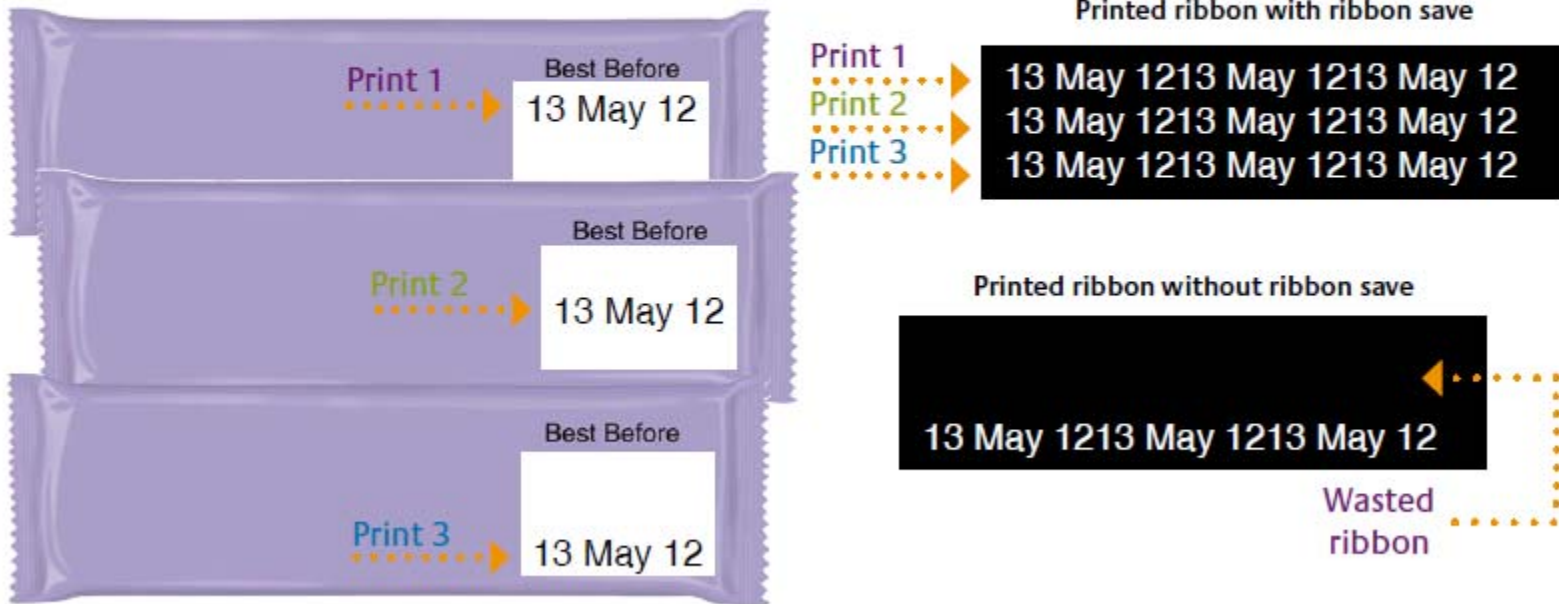


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## Radial ribbon save ■ ■ ■

### Maximize ribbon usage:

- Moves image across ribbon in radial direction using the entire width of the ribbon



# Product Overview – Ribbon Save



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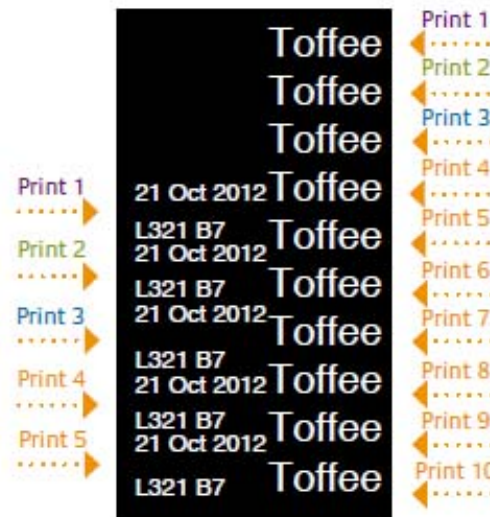
## Negative ribbon advance ■ ■ ■

### Maximize ribbon usage:

- Save on ribbon usage by assigning a negative value to ribbon advance setting



Printed ribbon with ribbon advance



Printed ribbon without ribbon advance



# Product Overview – Ribbon Save

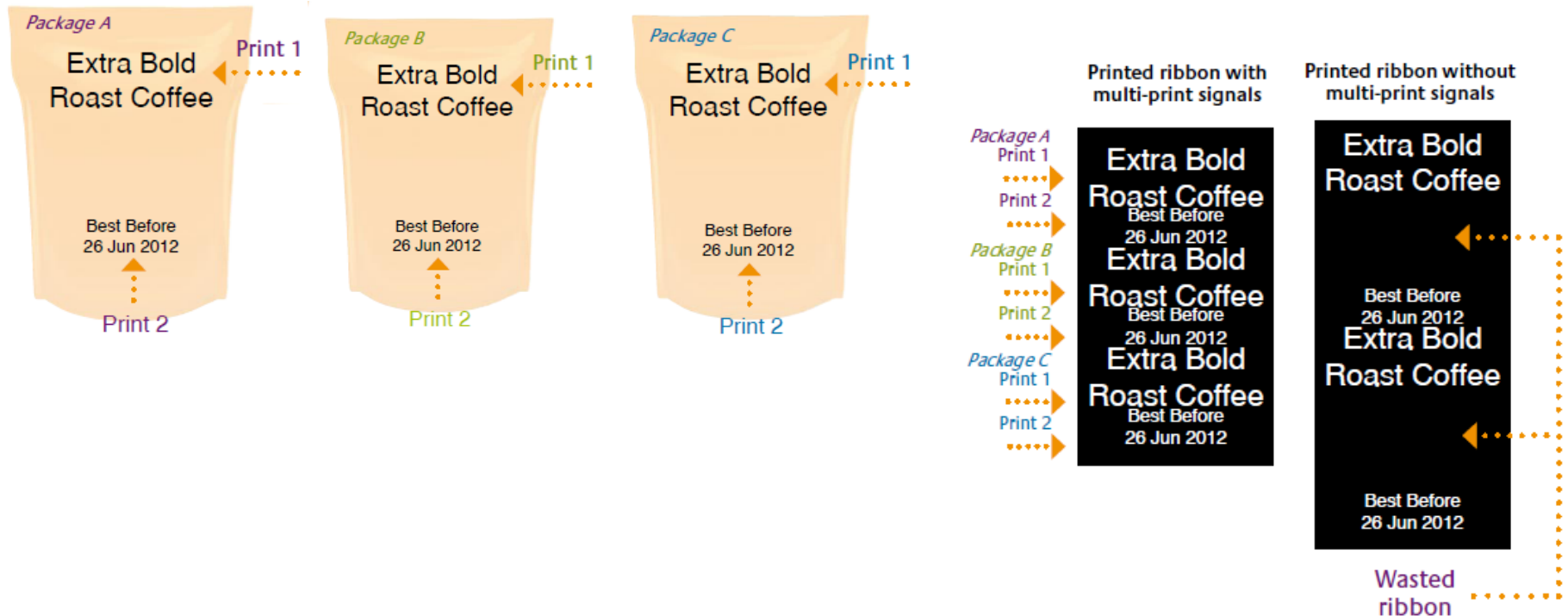


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## Multi-print signals ■ ■ ■

### Maximize ribbon usage:

- Print different images on same substrate without additional adjustments





# Software



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- **CoLOS® Create Professional** satisfies all message design and management needs. This functional software allows for easy creation and management of complex labels and codes for all the Markem-Imaje printers via a unique user interface.
- **CoLOS® Enterprise** is a state-of-the-art software and part of a scalable suite of standard software and networking solutions. CoLOS® Enterprise is an open and flexible software that combines both CoLOS® Create Professional for message design and CoLOS® Control for networking multiple printing equipments. CoLOS® Enterprise allows to link, manage and operate all printers throughout the plant. It contributes to ensuring product data integrity and optimizing coding activities.
- Click on the PDFs to know more about **CoLOS® Create Professional** and **CoLOS® Enterprise**

**CoLOS® Create Professional**  
intuitive message design software



**Our expertise**

CoLOS® Create Professional satisfies all message design and management needs. The functional software allows for easy creation and management of complex labels and codes for all the Markem-Imaje printers via a unique user interface.

This is the perfect solution to generate CEI compliant barcodes and make a link with the enterprise database.

**Your benefits**

User-friendly message design - Easy design of complex messages and labels via a WYSIWYG (What You See is What You Get) PC interface.

Easy message design management - Management and storage of all your message designs on a central PC file or storage bank.

Link to enterprise database - Standard message creation and design with variable fields linked to product database.

Compliance with industry standards - Creation of labels that comply with worldwide specific chart standards (GS1).



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**CoLOS® Enterprise**  
network control and message design software



**Our expertise**

CoLOS® Enterprise is a state-of-the-art software and part of a scalable suite of standard software and networking solutions.

CoLOS® Enterprise is an open and flexible software that combines both CoLOS® Create Professional for message design and CoLOS® Control for networking multiple printing equipments.

CoLOS® Enterprise allows to link, manage and operate all printers throughout the plant. It contributes to ensuring product data integrity and optimizing coding activities. It helps secure data safety, reduces human intervention and offers a full production control management system capable of meeting a wide diversity of needs.

**Your benefits**

Message design - Complete message and label creation from a user-friendly interface on your office PC outside the production floor.

Central data management - Central management of a unique base of messages and labels, link to your enterprise database allowing the retrieval of all product variable data.

Securest production labels start-up - Securest operation of data to prevent mislabeling between steps and automating the tasks. Proofer communication by group when starting production start-up.

Seamless integration - Easy connect link to your existing database via standard Open Database Connectivity (ODBC) interface. Optional Open Product Connectivity (OPC) support to help you integrate your production control systems.



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*Thank you for  
your attention.*

**nefton**  
Ζύγιση  
Σήμανση  
Συμμόρφωση

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