



Clearmark

/ Technology Insight



Secondary Packaging Printing Options Guide

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About this guide

This guide has been specifically designed to provide production line staff and engineers with an at-a-glance summary of the pros and cons of the different equipment and technologies available for all types of secondary packaging requirements.

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Print type: pre-printed boxes

Print type:

Printing the variable data required onto a substrate using an on-line inkjet printer.



ICE Viper
Thermal Inkjet Printer

Pros

- The online print requirement is a relatively low cost inkjet printer
- Simple to set up and operate

Cons

- The cost of pre-printing the box is relatively high, particularly when there is a large number of product varieties
- Need to maintain and store a variety of pre-printed boxes. This could be high depending on number of product types
- Stock management issues with stock value, overstock/understock issues, storage costs, flexibility to adapt to manage change quickly, confidence to manage change



Consumables required:



Print type: Large Character Marking (LCM)

Print type:

Printing information on a large print area on a cardboard substrate.



ICE Torus
Case Coder

Pros

- Can combine the requirements for variable data and article information on the label
- No obsolescence issues with the box design
- No inventory of pre-printed boxes to manage
- No separate print room required
- Less human resource required to manage the process



Cons

- Difficult to achieve desired ANSI grade on recycled board. Often ANSI grade C is the highest grade that can be achieved on recycled board

Consumables required:



Print type: Print labels offline, hand apply

Print type:

Printing labels in print room offline and applying them by hand.

Pros

- Relatively low cost
- Can be achieved with cheap desktop label printers i.e. lower capital costs
- No on-line equipment to manage, therefore no downtime or on-line issues
- No maintenance issues, if the printer faults in the print room and not on the line, it's perceived as less critical



Zebra
Off-line printer



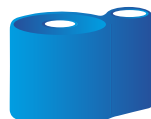
Cons

- Resource required for hand applying labels
- Prints at relatively low speeds
- Daily activity that needs to be managed
- Labour intensive to print labels and hand apply with a possibility of human error
- Waste is one of the biggest costs as label changes can make already printed labels unusable.
- The demand for a high volume of labels can make the process inefficient

Consumables required:



Labels



Thermal ribbon

Print type: Print labels offline, use hand applicator

Print type:

Printing labels in a print room off-line and using a label applicator to apply the labels on a packaging line.

Pros

- Relatively low cost
- Automated label application therefore no people resource required to apply labels to packaging
- Can be achieved with cheap desktop label printers i.e. lower capital costs
- No on-line equipment to manage, therefore no downtime or on-line issues
- No maintenance issues, if the printer faults in the print room and not on the line, it's perceived as less critical



Zebra
Off-line printer



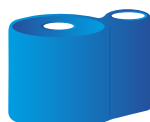
Cons

- Label prints at relatively low speeds
- Daily activity that needs to be managed
- Labour intensive to print labels
- Waste is one of the biggest costs as label changes can make already printed labels unusable.
- The demand for a high volume of labels can make the process inefficient.
- Label applicator to maintain on the packaging line
- Two pieces of equipment to manage , one on-line and one in a print room therefore more labour required and more waste

Consumables required:



Labels



Thermal ribbon

Print type: On-line print and apply labelling

Print type:

Labels are printed on-line and applied at the time of printing.

Pros

- Flexibility to produce what you want, when you need it with on-line digital capability
- Can combine the requirements for variable data and article information on the label
- No obsolescence issues with the box design
- No inventory of pre-printed boxes to manage
- No separate print room required
- Less human resource required to manage the process
- Able to print ANSI A rating to comply with supermarket requirements
- On-line process allows unique data to be applied to the package e.g. for track and trace purposes or to apply unique product data

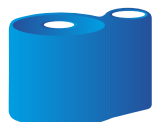
Cons

- The cost of labels and thermal ribbon may be slightly higher than printing directly onto a box

Consumables required:



Labels



Thermal ribbon



ICE Vulcan
Print & Apply Labeller



Get in touch

About us

Clearmark Solutions has been solving coding challenges through innovation for the last 20 years. Working with our customers over the years to create bespoke solutions that encompass consultancy, design, install and consumables fulfilment and deliver towards your business goals.

Our strong heritage provides us with a clear future so you can trust us to support you in improving production reliability, flexibility and performance.



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