

# Understanding the total cost of ownership of a print & apply labeling system

An informative look at the long-term costs of an LPA system



The capital outlay for a labeling system has a clear and obvious cost – but it's just the beginning of the investment. It is important for manufacturers to also consider the running costs of the equipment, the hidden costs of lost production due to unscheduled downtime, and decreased efficiency caused by repeated “touches” often necessary to operate the system.

**To help facilitate purchasing decisions, Videojet has compiled some guidelines to help ensure manufacturers are measuring not just the total cost of ownership (TCO), but the true cost of ownership.**



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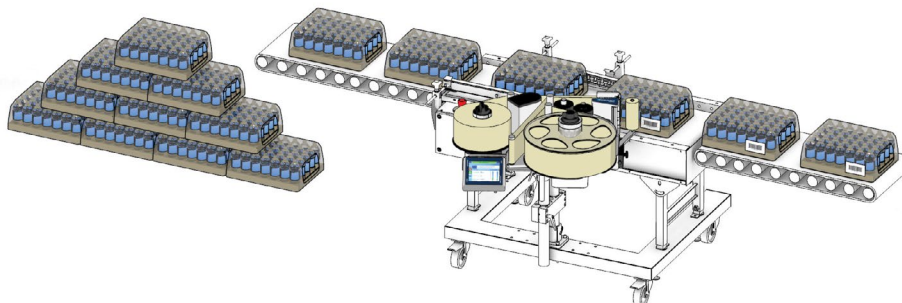
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# It pays to fully understand the long-term requirements of an LPA system

With true cost of ownership information, manufacturers can better calculate their investment and understand the influential factors that can affect their success and printer performance for the long-term.

When calculating true cost of ownership (TCO), manufacturers should consider:

| Capital and Operating Costs = Total Cost of Ownership  |  |   |
|--|--|---|
| Capital Costs:   | Operating Costs:   |   |
|  | Consumable Costs (per annum):  | Service/Maintenance Costs:  |
| <ul style="list-style-type: none"><li>• Initial investment<br/><i>(year one costs only)</i></li><li>• Installation<br/><i>(year one costs only)</i></li><li>• Additional material handling</li><li>• Back-up units</li></ul> | <ul style="list-style-type: none"><li>• Ribbon costs</li><li>• Air costs</li><li>• Label costs</li></ul> | <ul style="list-style-type: none"><li>• Weekly or monthly maintenance</li><li>• Unplanned maintenance / unscheduled downtime</li><li>• Daily interactions</li><li>• Spare parts costs</li></ul> |



# Capital costs

Using the OEE model, it is easier to evaluate many of the unseen factors for equipment success or failure and their contribution to the bottom line.



The capital expenditure to acquire an LPA system represents a significant portion of the TCO. Prices vary among different suppliers and are easy to compare on the surface. What's important to take into account is how the piece of equipment will help manufacturers achieve their ultimate goal – getting quality shipments of their product out the door. A simple way to assess this is to use the individual components that make up an Overall Equipment Effectiveness (OEE) evaluation.

## OEE Components

### Availability

Will the LPA equipment be ready and able to do its job when required? A few hundred dollar savings in capital spend can be quickly negated by equipment being down when there are urgent orders to fill. Also, will manufacturers feel confident enough in the reliability of their selected system to eliminate the need for additional capital expenditure for “back-up” units as is common with some of the current LPA offerings in the marketplace?

### Performance

Can the LPA equipment run at speeds that match peak labeling requirements or must accommodations be made for throughput limitations? Technologically-advanced direct apply systems coupled with a near-edge print design can provide high print speeds – up to 150 packs per minute for typical 4” x 6” GS1 bar code label requirements..

### Quality

Can manufacturers rely on their LPA equipment to accurately place a label on every outer case, time after time? Missing or misapplied labels cost time and money to rework. Also, can the system help prevent human errors related to applying the wrong information? These errors can often lead to vendor financial penalties if not caught before the product enters the supply chain.



# Consumable running costs

The difference in the total cost of consumables based on what type of LPA system is selected can add up over the lifetime of the system. The biggest consideration is the ribbon, which is directly related to whether manufacturers choose a system with a flat-head printhead design, which will use a wax ribbon, or near-edge printhead design that uses a wax-resin ribbon.

While wax ribbons tend to be less expensive than wax-resin, this difference is typically offset by the ability of the near-edge printhead to lift between prints and thus eliminate the associated gap (i.e. neither the blank space on the label nor label gaps will be printed). Additionally, many LPA systems have the option of running in direct thermal mode, which eliminates the use of a ribbon altogether.

**Ultimately, the type of label application method selected will determine whether or not plant air is required.**

Direct apply or "wipe" applicators do not require air, thus eliminating both the installation cost of the air line and the ongoing running costs. Eliminating plant air usage is also typically aligned with many manufacturing facilities' sustainability initiatives – reducing energy usage, and thus lowering carbon dioxide (CO<sub>2</sub>) emissions.



# Service and maintenance

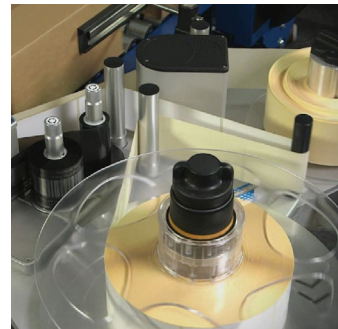
**The service and maintenance component of TCO is related to repair of a down system and the necessary periodic maintenance procedures required to keep it running.**

With an LPA system, it is also equally important to understand other required interactions. Many models need a series of manual adjustments on a daily basis, which are not only time consuming, but can lead to unplanned downtime if not done correctly. Moreover, with older technologies there are a lot more parts to maintain and they traditionally require more cumbersome ribbon changes and increased operator handling time.

## **A holistic approach**

Selecting a new LPA can be tricky, but it is essential to remember that your choice will determine whether your company is operating as efficiently as possible and the ease at which you comply with legal regulations as well as customer expectations.

To make an informed decision, be sure to look beyond the cost of the initial investment and include additional material handling and operating costs. Plus, you should consider the potential new business opportunities you can win through the improved technology. By taking a holistic approach, you will be strongly positioned to more fully calculate the short and long-term benefits of any new printer or labeler.



## **The Videojet solution:**

**Taking into account the many different variables of an LPA system's TCO, Videojet has developed its extremely reliable, low maintenance, and operationally efficient LPA labeling system.**

Featuring Intelligent Motion™ technology, the Videojet LPA system precisely and automatically controls the label path, helping ensure web tension is maintained, thus removing issues of slipping clutches, nip rollers or manual adjustments. In addition, a simple web path and collapsible mandrel enables label and ribbon changes to be completed easily in less than 60 seconds, therefore reducing operator handling time.

Our technology is designed without the mechanisms that frequently cause everyday LPA operational problems, such as label jams. With accurate direct placement of labels onto every pack time after time, and no need for a tamp or air blast applicator, spare parts requirements are reduced, as 80% of the potential wear parts are eliminated. The Videojet LPA labeling system has an impressive TCO story that offers accuracy, reliability and efficiency over its lifetime.

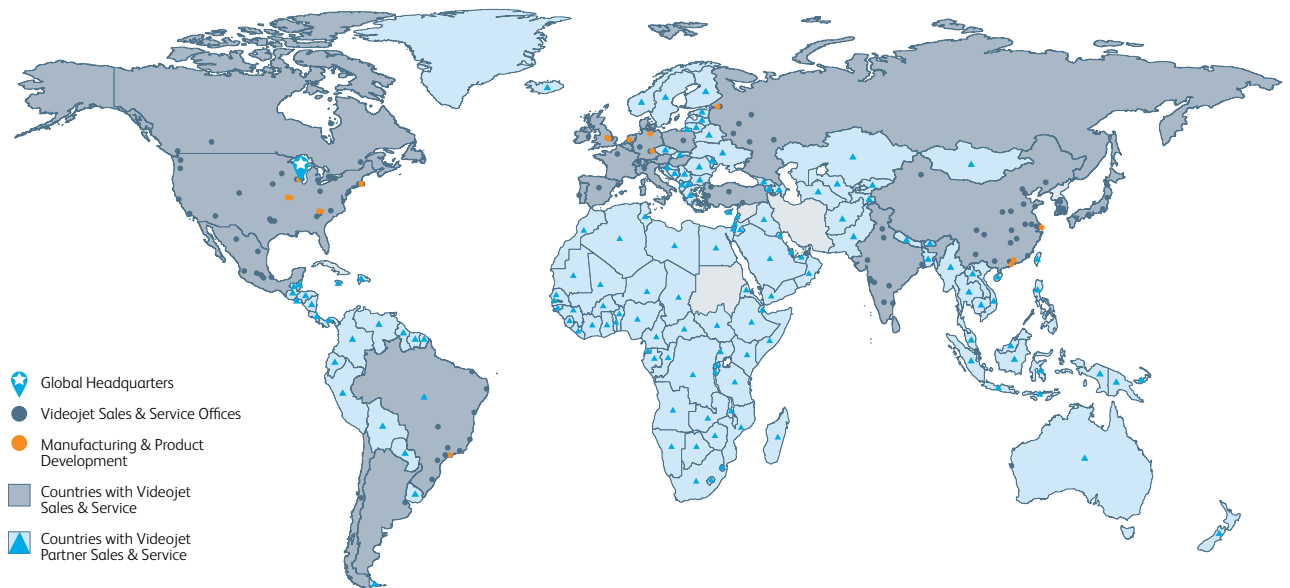
# Peace of mind comes as standard

Videojet Technologies is a world-leader in the product identification market, providing in-line printing, coding, and marking products, application specific fluids, and product life cycle services.

Our goal is to partner with our customers in the consumer packaged goods, pharmaceutical, and industrial goods industries to improve their productivity, to protect and grow their brands, and to stay ahead of industry trends and regulations. With our customer application experts and technology leadership in continuous inkjet (CIJ), thermal inkjet (TIJ), laser marking, thermal transfer overprinting (TTO), case coding and labeling, and wide array printing, Videojet has more than 325,000 printers installed worldwide.

Our customers rely on Videojet products to print on over ten billion products daily. Customer sales, application, service, and training support is provided by direct operations with over 3,000 team members in 26 countries worldwide.

In addition, Videojet's distribution network includes more than 400 distributors and OEMs, serving 135 countries.



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