



Automation packaging equipment is a significant investment, but typically offers lower cost, higher quality, and faster turn-times

# Automation unveiled

Automated packaging typically runs faster and less expensively than manual packaging. But for what types of packaging and run sizes are the benefits most pronounced? Debbie Galante Block explores these and other automated packaging questions

**T**he packaged media business is getting more and more competitive, primarily due to other forms of content delivery, such as downloading. Content publishers are looking to save nickels and even pennies where ever they can. So, in an age of decreasing returns, can replicators continue to invest five, six and even seven figures into new automated packaging equipment purchases?

Automated packing equipment suppliers prefer to look at the question in a different way. In an age of customers moving jobs to another packaged media services vendor over a penny or two, can replicators afford not to invest in automated packaging equipment?

Perhaps the best place to start is looking at how much demand requires such an investment. At the end of the day, there has to be enough business to justify buying a new automation

machine. "If we are only talking about large production runs in a standard assembly configuration, we estimate that a customer would want to start looking at automation when they reach 5 million-plus units per year," says Randy George, sales director for North America, Gima Advanced Technology. The cost of the machine also plays a role in the purchase decision. Automated packaging suppliers *MediaPack* say their equipment prices range from the mid-five figures for a semi-automated line, to seven figures for a high-end system with all the bells and whistles.

Another key question revolves around run size. Is there a quantity for which manual packaging is more efficient than automated packaging, for example? One would presume that the larger the run, the more likely automation is the answer. While that often is true, it is not set in stone, according to Ron

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Vangrov, vice president and general manager of the JVC fulfillment operation in Kennesaw, Georgia, who says that there is no magic number for when automation becomes the definitive answer. "We receive 1,000 to 5,000 unit orders which we can automate because they are very straightforward and machine setup time is minimal," he says. "Sometimes, there are other jobs for much higher quantities

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EAM offers a variety of automated packaging solutions, including the DVD Pac Plus



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that we elect to build by hand, because of special packaging considerations.”

“The impact of run size is not a serious factor in the automation decision,” adds Jose Garcia, director of assembly and packaging for Sony DADC. “Small orders run on automated lines just as larger orders do. The replicator simply has to have systems in place to ensure the integrity of the order is maintained and sufficiently skilled operators can perform effective rapid order changes.”

Vangrov brings up a key point. It is no surprise that automating the insertion of a disc into an Amaray-type box will almost always be less costly than hand insertion. But in today’s world of content owners wanting to differentiate their product by offering something unique to the customer, it is becoming more likely that some special offering will be included with the DVD box that is not automatable, like a unique booklet or trinket.

In those cases, it can make sense to do a little bit of both, automation and manual packaging. Even if it is just part of the

packaging that is automated, it can still make a big difference with regard to time, price and even result in a better finished product. “There are often parts of the assembly operation that can be automated to improve turn-time or ensure quality,” says Garcia.

Engineering Automation of Maine (EAM) has gone so far as to create a spread sheet to try and help customers determine whether or not automation can be a benefit to them, according to Roland Wyman, EAM director of sales. He works with customers to come up with numbers that describe how many parts-per-minute they achieve with hand-packing,

order sizes, on average, decrease, even for top-tier replicators. Some replicators running EAM’s larger, 100-part-per-minute machines have also chosen to add smaller EAM machines to run lower quantity jobs. For lesser orders, such as 1,000 units or fewer, changeover on smaller machines is quicker, Wyman says. “We have some customers that are running standard Amaray packages one day, and the next day, are running Blu-ray cases. It takes about 45 minutes to change over,” says Wyman.

Rod Streeper, customer operations director at mid-size replicator Entertainment Distribution Company, says, “On a given day,

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how much an operator is paid per hour and how many packages the operators can complete in an hour. After plugging all of the numbers into the spread sheet, customers can see comparable figures, such as how many packages will be produced on five eight-hour shifts per week, for example. From there, they can figure out how many weeks it will take to pay for the machine for a certain type of packaging.

Wyman said EAM is selling its’ machines to big and small replicators alike, particularly as

we have one-quarter to one-third of [discs in] our facility that are hand-packed. We are seeing a lot of demand for hand-packed. However, it’s usually extremely advantageous to go with automation. The Amaray case was really designed around automation.”

“As the market matures, there is a strong tendency to differentiate product and this is certainly evident in the music industry,” adds Sony’s Garcia. “But to a large extent, the DVD market is still a new release-driven business that requires a high level of manufacturing and distribution throughput to support the cycles. Automation provides the production bandwidth to complete large new releases with the shortest lead times.”

Roland Wyman

## Automation expectations and disappointments

An all too frequent complaint from replicators is that automation machines do not live up to their throughput claims. Automation equipment suppliers are aware of this criticism, and say that a lot of the problems are based on who is running the machines, how they are maintained, and the quality of the packaging being run through the machines.

"We have found that customers who properly support and maintain their equipment and purchase materials that meet the minimum specifications for a DVD box have no problems achieving advertised production rates," says Gima's George. "Often times, customers invest in equipment and fail to make other critical and important investments in support, operators, maintenance and purchase of quality materials."

Gima designed its most current generation of DVD packaging machines, the DVD899 and DVD899 Plus, with the flexibility to run not only different types of DVD boxes, but also different quality boxes, too. "Our machine is designed to handle a large variety of DVD box types that meet the minimum specifications for a 'decent' DVD box with no intervention by the operators to adjust the machine," says George.

EAM's DVD PAC Plus consists of small, modular machines, some fully automatic, some semi-automatic. EAM says these machines can handle variable product quality as well. "Our machines are doing 20 parts per-minute. Since it is a simple machine, it is forgiving to product variations. It is not as fussy as other machines about the materials that get put through it," offers Wyman.

Some replicators understand that their operation plays a role in the throughput an automated packaging machine will offer. JVC's Vangrov says, "Rarely does any automated equipment run at the manufacturer's published specification." He describes the most common variables that affect run rate to be:

- lay out of the production line, including options purchased on the machine and how the machine is integrated with other equipment on the line (eg labelling, overwrap);
- physical environment in which the machine is running;
- consistency in the raw materials, including the case and the print material being inserted;
- operator training and experience; and
- maintenance/technician support.

"It is not uncommon," Vangrov says, "to produce one order at a rate of 80-90 pieces-per-minute and struggle on the next order to achieve 60-70 pieces-per-minute simply because of variations in the case or print material."



Gima offers flexible automated disc packaging solutions

A replicator can't simply go out and buy the equipment, install it, and expect it to run efficiently, adds Garcia. "It is necessary for the replicator to have the infrastructure in place to support the operation," he offers. "Concerning alternative cases, many of them do run well through automated equipment or perform well in the field. It is incumbent upon the replicator to first ensure the case meets the customer's expectations with regards to product quality. The replicator is not doing their client any favors by running substandard cases." ●