

Keeping ahead with year-round 'busy season' capabilities

There is always pressure on replicators to produce at high speeds – more so at this time of year – but this, George Cole finds, is taken in their stride by most packaging equipment manufacturers

It's that time of the year again. The optical disc industry works to seasonal peaks and troughs and the peaks don't come much bigger than in the final quarter of the year. It's the time when disc production is ramped up to its maximum and when clients are working overtime to meet demand. For example, in 2006, US DVD Video sales for the first quarter of the year totalled 395.8 million units, according to the Digital Entertainment Group; for the fourth quarter, the figure was 571.4 million. The last quarter of the year represented more than a third (34%) of total annual sales. That is why, if a product isn't at retail in time for the holiday season, then it's a disaster in terms of lost sales.

Little wonder then, that packaging machine manufacturers are under pressure to deliver machines that can cope with the increased demand. Everyone wants a machine that offers speed, reliability, and flexibility – all at a highly competitive price. So how are packaging machines designed to cope with the busy season? What are the machines' top disc capacities and speeds and are these figures sustainable during the peak seasons?

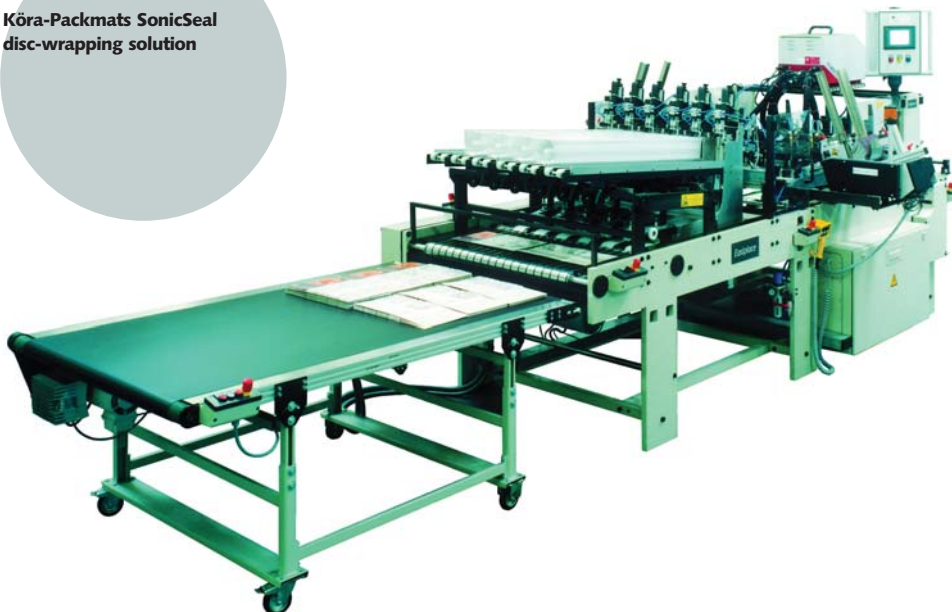
Totally automatic

Frankly, says Alex Wardell of Kyoto America, you get what you pay for. "The higher end packaging technology is very robust and very well geared to 24/7 operation during the busy season. Duration of operation does not affect speed outputs and high efficiencies can be maintained when using Kyoto automation. However, this can not be said of all packaging machinery available in the marketplace."

Christina Hezel, marketing manager of Köra-Packmat, says: "Disc wrapping machines run at 100 products/minute. Different wrapping styles and different formats are possible, for example, film sleeve for bare CDs with different features like re-closable flap, hanger pack, easy open perforation, security sealing seam, use of printed film, film wrapping of carton boxes, jewel cases, and DVD boxes. The machines are very solid and designed for 24/7 production. Therefore the busy season is no problem for the machines."

Roland Wyman, sales director of EAM, adds: "We produce a packaging system that is a bit different to what is normally considered a packaging machine. Instead of a machine designed to produce either 60 packages per minute or say, 100 per minute, we designed a smaller machine that operates at 20 per minute."

Köra-Packmats SonicSeal disc-wrapping solution



Michael Kohmann (left) and Oliver Vogel of Kohmann GmbH

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This is the company's DVD PAC Plus. At a rate of 20 cases per minute it drops a completed case, which remains open, onto a conveyor. The case then flows to a machine that can place a security tag inside and close it before passing it onto a separate wrapping machine.

"What is clever about this is, that by adding more PAC Plus machines, the packaging facility can create a 40, 60, or 80 part-per-minute system as required," notes Wyman. "If the replicator is processing large orders he can have all his machines working on the same title. Quite often though, a replicator also has to process multiple smaller orders. The DVD PAC Plus units can be rolled away from the conveyor and assigned different orders."

At Kohmann, says managing director Oliver Vogel, the company's Easipace CD/DVD tray placing machine is largely automatic. "Feeding of the carton, and packing of the glued products as well as feeding the magazines with the trays is carried out manually. The cartons feeder can carry approximately 100 to 150 carton blanks, each tray magazine can carry about 200 trays and delivery of the finished product is carried out in stacks of 10. While the machine is operating at full capacity (18,000 cartons/hour in a three-lane operation), about five people are needed to feed and to pack the finished products. Usually the machines run at 10,000 to 12,000 per hour, in a two-lane operation, with four people."

For duplicators and smaller replicators, the peak season starts a little later, says Anis Asghar, Verity System's business development

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manager: "By about September the big replicators are going flat out, but for smaller operations, the peak season doesn't start until October. They tend to get the smaller runs and rush jobs then. The client will often wait until they've got the contract or get part payment before they buy anything. We get a lot of sales then and I think part of the reason why we're so successful is that our equipment costs as little as half that of some competitors."

All change

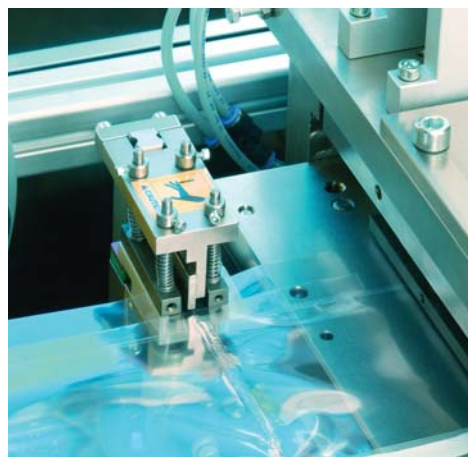
One of the key issues is changeover time, because downtime is dead money to the duplicator or replicator. Not only that, but with steep targets to meet, the pressure is on to keep things ticking along for as long as possible. There's a fine balance to be struck between offering a machine with changeover facilities but, at the same time, keeping the process down to a minimum: it's no good having a machine that handles everything if you have to wait half a day before you can restart production. Kōra-Packmat says the changeover time on its machines is between 30 and 60 minutes, while for EAM the change time from standard DVD to HD or BD is 10 minutes after the initial 'learning curve'.

"Due to the simplicity of the design our changeover times are only 15 to 25 minutes," says Vogel. "The same applies to different carton or tray styles. The main parameters on the feeder and the magazine are set by means of a touch screen panel which makes operating the machines simple."

Machines should cope whatever the season, Wardell believes: "As machine manufacturers, we design machines to have quick changeover times, to reduce downtime and increase flexibility during busy seasons. Changeover times certainly depend on the types of packages that we are required to accommodate. For Kyoto machinery, 'normal production' is 'busy season production'. There is no difference in our theoretical or actual outputs."

Keeping fit

They say that prevention is better than cure and keeping machines in tip-top condition is essential, especially during the peak season. In



The sealing stage

Verity System's DVD case wrapper



the same way that a car driver needs to carry out routine maintenance such as checking oil levels, water levels, tyre pressure... so packaging machines need to be monitored to ensure that they run at their best and, more importantly, don't break down in the middle of a run. "Regarding machine maintenance, it is certainly beneficial to utilise slower periods to lubricate and replace wearing parts," Wardell stresses. "I have certainly seen well-maintained machinery produce more

Such assistance and training is more beneficial while operations are slightly slower, but lots of production provides the best training grounds for sharing our secrets with our customers. We also see a wider variety of materials during the busy season so we can teach and show our customers how to deal with many different scenarios."

"One of the key issues is changeover time, because downtime is dead money to the duplicator or replicator"

efficiently than poorly-maintained machines, even of the same type."

However, this need not be onerous, as most manufacturers say their systems are designed to keep maintenance to a minimum. For instance, Vogel says: "The drive of the machines is carried out by a maintenance-free toothed belt drive. A special preventive maintenance plan of the machine is not necessary. Even runs of only 100 products are done on the Easiplace due to the quick and easy set-up."

At EAM, "Our machine does not employ large central drives, therefore adjustments and wear inspections are not needed," Wyman says. "A daily check of the vacuum filters and minor cleaning of vacuum cups and machine surfaces is all that is required." Hezel of Kōra-Packmat adds, "Our machines need only little maintenance and are almost free from wear. Therefore preventive maintenance is not necessary."

Similarly, you might expect machine manufacturers to get lots of calls from their customers at this time of the year, but that varies quite a bit, depending on the customer. "We do see additional calls for telephone tech support but not to a great extent," says Wyman.

People often do need some kind of help in Wardell's experience: "We do receive more requests for assistance during the busy season.

Blue (and red) Christmas

CD and DVD have been joined by the blue laser formats Blu-ray Disc and HD DVD and this year we are seeing software companies ramp up disc production for these formats. The blue laser formats are still premium-priced products and one way of differentiating them from standard DVDs is in the packaging. What is more, with two competing formats, there's the added pressure of making your products stand out on the shelf, so have machine manufacturers received any special demands for Blu-ray or HD-DVD packaging?

"I've seen some special packaging for Blu-ray – TDK have metallic packaging for their Blu-ray discs," says Asghar. Hezel says "Yes, we received several demands for specially designed boxes for Blue-ray /HD-DVD." Wyman adds: "We have customers who have said it is important to them to know that our machines will handle this when required."

That seems to be key – "when required" – and Wardell echoes this sentiment: "We are seeing some increased demand for BD and HD packaging and have sold many systems capable of this, but the war between these two formats is likely only to slow the ultimate success of next generation media." ●