



At first view, the flatbed applicator may seem like an unnecessary indulgence. **Sophie Jones** ventures on a steep learning curve to discover why printer firms should seriously consider the investment



Sometimes, writing for a print magazine can have its humbling moments. Coming to write an extended study of flatbed laminating systems, I thought, naïvely, ‘how complicated can this be?’ Viewing the machines in action, the benefits of having a flatbed over an upright laminating system for large-format print applications seemed pretty clear: the bridge controlled roller for single-man operation, the easier and more accurate application meaning faster, better laminating—the facts are persuasive. Yet the question all print providers have to ask is whether the machine is really worth the investment. Laminating may not be the largest part of what they offer, and with flatbed

printers becoming more popular, would this other large piece of equipment actually be useful or simply gather dust?

My scepticism seemed initially well-placed, as across the board manufacturers and suppliers were coy when it came to talking about this technology. William Smith and Spandex, suppliers of the kingpin of the applicator manufacturers, Rollroller, both declined to comment on the sales of the machines. After a number of failed attempts to get through to Radeval, supplier of the Monster Applicator Table—though this could have more to do with post-Christmas disorganisation—I did get the feeling that the

Graphics Printing Technologies (GPT) announced is the sole UK distributor for the LamiDesk range of industrial flatbed lamination applicator machines. Options include uniquely an electrically driven roller to transit the bed (with footswitch control), LED bed illumination, and clear over-cutting mat

large-format print world was not terribly excited about flatbed laminating systems.

However, my whole perception changed on speaking to the dynamic Loic Delor, managing director of Josero, a company especially well-known for its large-format printer and inkjet expertise, but which also supplies the Bubble-Free Flatbed Applicator, which comes in 1.5m (4' 11") to 2.2m (7' 2") widths, and 2.2m (7' 2") to 7m (22' 11") lengths. Delor starts out with a statement that proves I, and the industry at large, have the completely wrong idea when it comes to the potential for this equipment.

Delor begins by identifying that the

first problem with an industry-wide misunderstanding is purely verbal. He says: “Flatbed laminators don’t really exist: they are called flatbed applicators. The difference is, although you can laminate with a flatbed applicator—the same way you can mount with an upright laminator—laminating is not its primary function.” The confusion, is clear, as, even on Josero’s website, the Bubble-Free is both described as a laminator—which it can do—and an applicator—which it is, but Delor is very clear that the two machines have different functions: “People do need to understand the difference between an applicator and a

flatbed applicator for various reasons, the main one being the time saved. It is a lot faster to do most things on flatbed than a laminator. If you use a laminator you have to feed a whole sheet or board through the rolls and, say your board is two metres long, you need a table in front and behind to stop the board from falling. Obviously nobody has four metre long arms, so you need to have two people, one at the back and one at the front. Again that makes the process difficult and time consuming.”

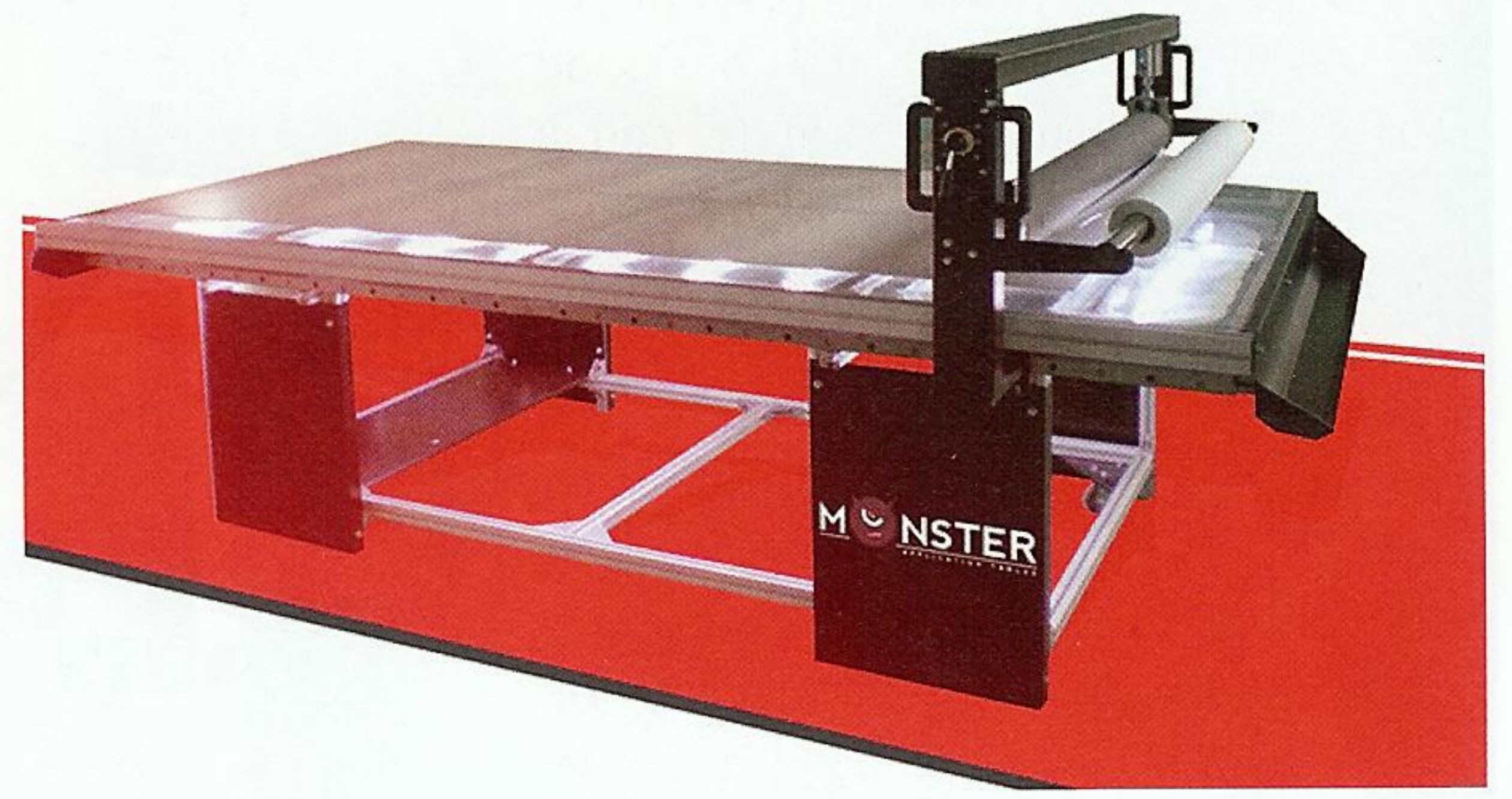
Delor also points out that it is a lot easier to make mistakes on an upright laminator, especially when under the pressure of a large order: “As the

**Factoid:** The very first flatbed applicator, the RollsRoller, was invented in 1996 when Reklamidé AB took on too much work and its head man Göran Johansson realised they would never make their deadline. His solution was to fabricate a table with a traverse beam and a roller would make it much easier to apply material to the underlying surface, significantly reducing production time.

laminator. Some people will tell me: ‘Well, I can do everything on a laminator’ at which point we invite them over to try the applicator. Then they try it and you see them thinking: ‘Oh god’ and they realise the difference.”

These differences, according to Delor, are ones that can make—and have made—huge improvements to a company’s workflow. From talking to customers, Delor has pinpointed what the biggest advantages of the equipment are. He says: “People use the

laminator is fixed and the roller is spinning, the board is going through the laminator. That is much harder to handle than having the roller moving above the board. The problem is that if the board is not perfectly aligned and perpendicular to your roll when you start sending it through, your board is going to be on an angle, so what you’re trying to stick on it is going to be applied at an angle. It’s going to crease and then you’ve ruined your print, you’ve ruined your board, and you have to redo the order.” Delor is quite



The Monster Applicator Table from Radecal comes with a twelve-month warrantee

clear, however, that for low productivity laminating or application, the flatbed may not be necessary: “If you only need the odd board doing, and you’re quite skilled, then a laminator is fine—everyone would say to do it through a laminator before moving to a flatbed. But, if you get an order for, say, 20 boards you’re going to start having a massive headache.”

Delor goes on to say that a big difference between the two machines is that the roller is made of much softer rubber on the applicator. He warns: “You can still use it to laminate, but if you are just doing laminating all day long, you’ll end up damaging the roll.”

## Applied engineering

In terms of productivity, Delor says you can really start to see the difference between an upright laminator and a flatbed applicator: “To give you an idea, someone in a normal print shop who is skilled with a laminator will do maybe three or four 8 x 4 boards an hour. With a flatbed, you can do 25 an hour. And the other difference is, with a flatbed you’re not going to have any problems: 25 boards will be 25 good boards.”

So, the applicator is not simply a fancy step-up from an upright laminator, says Delor. It has extra functions, on top of laminating, which makes it a superior and more flexible piece of equipment, as Delor highlights: “You can pretty much apply onto whatever you want; Foamex, Dibond, any rigid material at all. You can also apply on clear film, two films together, and of course you can laminate as well. You can mount whatever you want. It is also really good for application tape. If people want to stick a board somewhere then they can use the machine to apply application tape and it will go on right the first time.

“Even big print firms who have flatbed printers that can print on almost every substrate will still use a flatbed applicator. The point is that flatbed printers can print on *almost* everything but not on everything. You might have

The Bubble-Free Applicator from Josero, says managing director Loic Delor, has multiple different advantages for a print provider, saving time, manpower, and money

a substrate you can't really print on, or that the quality might not be good enough, or you might want to add a laminate after you've printed it.

"For example, if you print on glass and then you want to laminate it, you cannot put that through the laminator. You need a flatbed for that. Also, sometimes to print on glass is very awkward so you might print it on a normal solvent printer on a roll-to-roll clear adhesive and then mount it on the glass." The Monster Application Table (MAT), from Radecal, for example, claims to be able to juggle multiple applications, with various material types. The machine, which comes in sizes 1.4m x 2.5m to 1.6m x 4m, with an illuminated glass table top for more accurate application and self-healing cutting mat, is especially suited to flexible banners and applied signage. It is clear that, for printers who already produce vinyl or adhesive print, the addition of a flatbed applicator could help them offer more services to existing customers and expand easily into other markets.

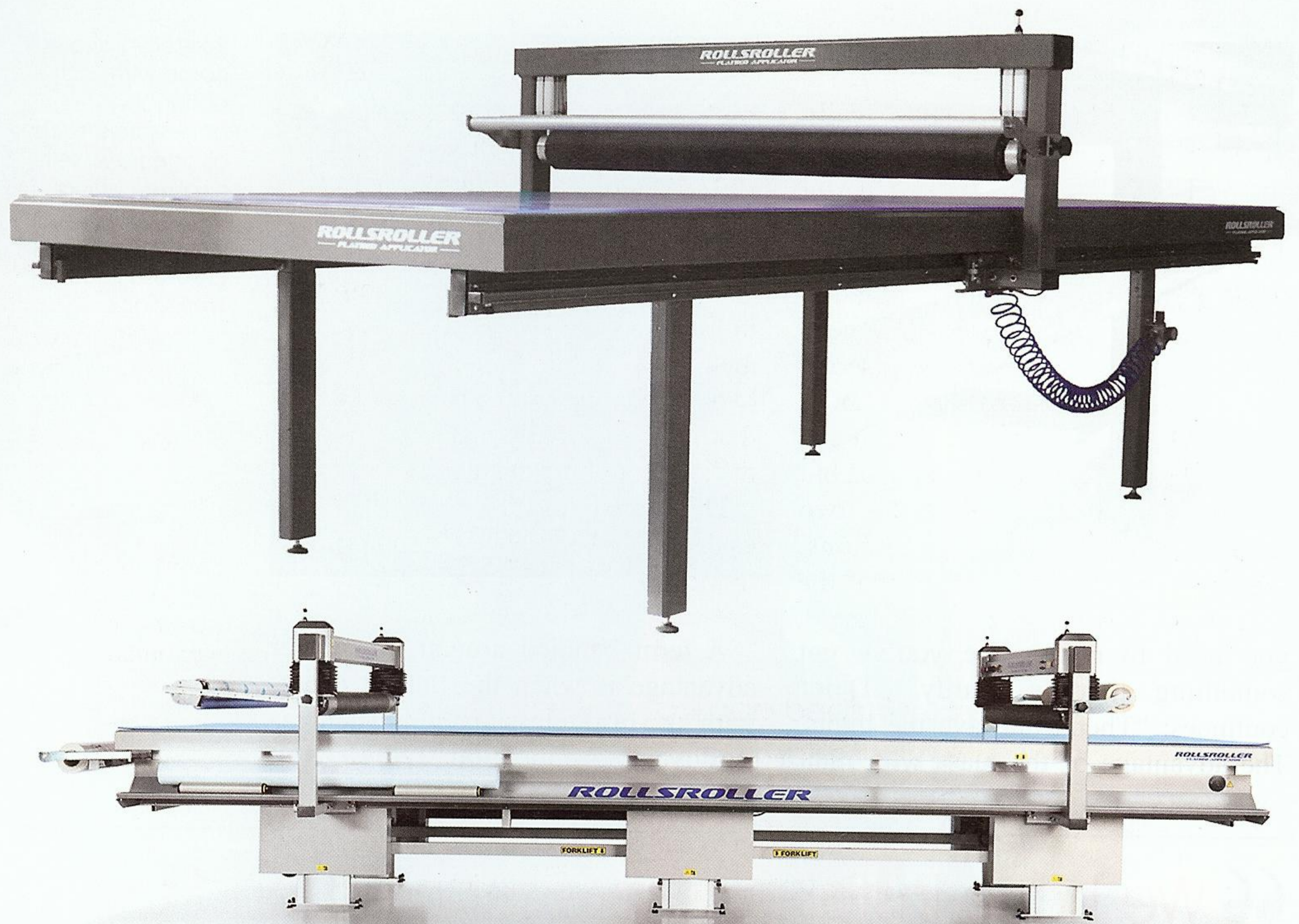
GPT is another industry supplier that has seen the virtue of these systems, and is the sole UK distributor of the LamiDesk range. It was initially designed to help commercial printers moving into wide-format cope with the extra workload and remove bottlenecks and the need for high skill levels to carry out the vinyl application. Coming in lengths of 1.6m, 3.5m, and 4.5m options, users can choose to either run lamination automatically with its motor drive and foot control to make it a true single person operation, or manually using button operation. The machine has also got around the need to use an over table gantry to improve ergonomics.

"We are extremely impressed with the superior construction, quality, reliability, and cost point of this new commercial flatbed laminator. With the improved productivity offered by the inbuilt motor feature of LamiDesk, our customers will be able to easily handle growing volumes of lamination and short turnaround times while meeting business growth goals," says Shaun Thompson, general manager at GPT.

He continues: "This is a market that has traditionally been dominated by one or two major players. However, we believe the LamiDesk offers some unique benefits, build quality and value for money."

## Dispelling myths

One setback of the flatbed applicator is that it doesn't necessarily come



Rollsroller's range of flatbed applicators, supplied by William Smith and Spandex, span from the Light—a smaller, lighter, entry level model—to the Premium, which comes in sizes up to 5' 7" x 35' 5"

cheap—it is a serious investment like any other finishing equipment. Top of the range is Rollsroller, and they come with the price tag. Its entry level model, the Rollsroller Light, launched by Spandex in 2013, which comes in 3.4 x 1.45m and 2.8 x 1.4m, starts at £7,900. The range goes up to the enormous Premium range—the largest of which comes in at a whopping 1.7 x 10.8m starting at £10k, with additional accessories available, such as an extra roller to create to work stations, an extension table, side trays, and bed end

accessories, and they are the most expensive. You can buy a laminator for £1,000, or £13,000. They are both laminators, but there are going to be differences—you get what you pay for." Delor then points out a number of factors to take into account: "On flatbed applicators the key point is that it needs to be a welded frame. You can't have it bolted. A lot of people tried out cheaper tables which were bolted, the benefit of that being so you can move it around. But at the end of the day those tables weigh 500kg and

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media holders.

It may be tempting to search the market, especially internationally, for a cheaper option. However, when it comes to purchasing, Delor is adamant that there is no point in buying a cheaper machine, because cutting corners will end up wasting you money in the long run. Or, as he says: "Rollsroller invented this technology 25 years ago, they innovated the product, added all the different

the bridge is very heavy. So, if you leave the table out, it's going to start to wobble, then it won't be flat, and you can't apply properly. That's why you need a welded table.

"The next thing is the warranty: Other than Rollsroller, we are the only ones offering a five year warranty on our Bubble Free Applicator. All the others are one or two years. This is important because it's a product you are going to keep for ten or 15 years so



Rollers also come with optional accessories, such as side trays, self-healing cutting mats, or an additional roller to create a second workspace

a bridge, they wouldn't build them with bridges."

## Heated debate

A final pitfall, says Delor, is the worst of all, and that is when a table offers heated rollers. Though he says very few manufacturers actually do this, it is something that printers ask him about. He is adamant on this point: "The advantage of heated rollers? Absolutely nothing. It's actually something you shouldn't do. It's the opposite of a benefit: it's a pain in the arse.

"The reason heated rollers ended up being used on applicators is because it was taken from the laminator. When heated, glue will dry and clear more quickly, so you will not get what's called the 'silver effect'. This comes about when a layer of glue is not completely dry. If you try and apply the laminate when the glue is cold, you will see a layer of what looks like tiny air bubbles developing. It's not air, it's glue, and it takes about 24 hours to disappear. If you laminate with heat, that goes straight away and you get no silvering.

"On an applicator, however, when you heat up the vinyl, it will stretch. If the vinyl has stretched and you put your board on, by the time you get to the other side of the board then the vinyl is bigger than the board. It is pretty silly."

Delor is positive about the future of the application table, mostly due to the positive reaction he gets from his customers after installation: "We started selling the applicator two years ago. We have installed more than 25 and every single customer has sent me an email two days later telling me they can't believe they hadn't bought one before. It just saves them so much time." In regards to the investment, Delor notes that the technology is at its peak, so a single investment is just that:

"There is no need to upgrade, so once you get one you never need to change it."

It seems as if the flatbed applicator—as I am now inclined to call it—is one of those hidden gems of the industry that has advantages but, because of some misunderstanding of its function and abilities, has not been so much in the limelight. In essence the machines are quite simple conceptually; a flatbed that can apply any adhesive onto any substrate—but since its conception a lot of research and development has gone into making it the ultimate wide-format-friendly tool for printers operating at a very high productivity rate and to a very high standard.

you need to make sure you've got something that is sturdy." Delor continues: "Then you have the lights. The advantage of the glass with light

A term bandied around as another advantage is when the flatbed comes with a bridgeless roller, such as Rollover's Application Table, as it

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top is that if you print backlit you can see what the print will look like immediately, like a print proof box. But also it is a lot easier to align your vinyl with the board when you're mounting because you can see through it. "A lot of products have neon lights. Rollroller has LED lights and so do we. Obviously there are environmental benefits but furthermore, with LED, you get uniform light on the bed. LEDs also don't use much power so if the lights are on all day, it doesn't matter."

makes it easier to move flexible material from one end to the other.

Delor advises against this: "When you don't have a bridge, you operate the roller from one side only. The force is applied only on one side so in the long run the roller will go askew.

"It's a lot cheaper to make a table without a bridge. However, Rollroller have been making tables for 25 years. It's no huge secret—if they didn't need

Rollover's Flatbed Applicator features a bridgeless roller, which makes it easier to move material from one side of the bed to the other, though has the risk of going askew

