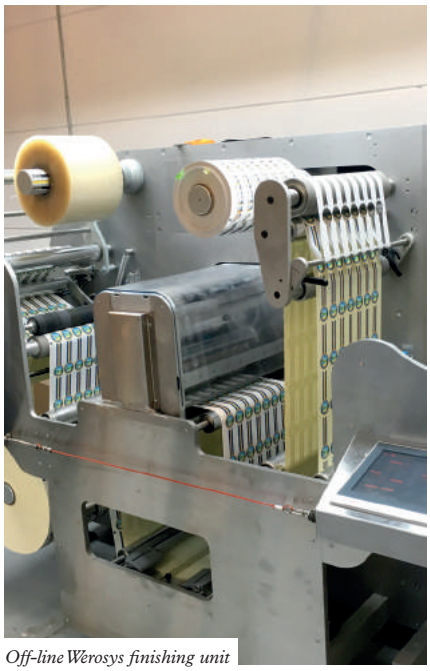
L-R Soren Pedersen, Palle Jakobsen and Bjarke Gerdes-Nielsen in front of Werosys in-line varnish unit on Xeikon 3300 digital press



Off-line Werosys finishing unit

Growing converter adopts automation

LabelSupply is a small converter with big plans for automating its workflow, starting with a Xeikon press combining in- and off-line finishing. Andy Thomas reports

Danish converter LabelSupply has moved into digital printing with a Werosys converting line for its Xeikon press, combining in-line varnishing with off-line die-cutting and slitting.

LabelSupply founder Palle Jakobsen started in the label business in 1978, the same year Labels & Labeling was founded. After learning his trade at Interket, in 1985 Jakobsen started his own company, Scanket. When he sold his shares in that company in 2008 it had 35 employees and a turnover of 4.5m EUR. It was also the first label converter in Scandinavia to purchase an Indigo press, installing an Omnius ws2000 in the year 2000, then upgrading through ws4000 series machines to the WS6000 in 2009. 'We acted as a lighthouse for Indigo in Scandinavia,' says Jakobsen.

Jakobsen continued as chairman of Scanket until his retirement two years ago. But like so many people with labels in their blood, it was not easy to break his ties with the industry, and he was persuaded to reenter the label converting business with business partners Claus Andersen and Göran Karlsson. Together they formed LabelSupply in 2013 after having purchased the factory building – located just outside Copenhagen – a year earlier.

The new company took three Nilpeter F2400 flexo presses from Scanket, but was not able to negotiate the transfer of the HP Indigo press. 'So then we decided to buy digital here,' says Palle Jakobsen.

The company chose to go with a Xeikon 3300 after a meeting with automated finishing specialist Werosys, located a short drive away from LabelSupply. 'We made the decision because of the integration that Werosys promised,' says Jakobsen. 'Our HP Indigo at Scanket had in-line finishing but at the same time we wanted the flexibility of off-line finishing for when we purchase a second digital press.

'Werosys was more looking to the future instead of building traditional machines. Using servo drives and with advanced levels of automation means that for the future we can integrate our digital presses with pre-press.'

Configuration

The configuration of the digital press sees a Werosys unwinder feeding the web into the Xeikon 3300, followed by an in-line flexo varnishing/spot color station. 'The flexo varnish unit is prepared for whatever comes up,' says Bjarke Gerdes-Nielsen, chief technical officer and founder of Werosys. 'For example we can retrofit automatic pressure setting systems so the operator does not have to adjust it.'

After varnishing, the web is rewound and moved to an off-line die-cutting and slitting unit.

Comments Palle Jakobsen, 'It makes sense to have all the printing equipment together and the cutting and finishing as a separate part.'

The die-cutting unit is fitted with a turret rewinder. 'We have combined a jumbo unwind on the press with a turret on the finishing unit so we can keep the print unit running and the multiple jobs are then separated on the finishing machine,' says Soren Pedersen, managing director and CEO at Werosys. 'This is much more efficient than "one job one roll" since the print parameters change when you change the material. This way you plan jobs which are on the same material so optimum print conditions are maintained.'

The finisher can be upgraded to a fully automatic laser die-cutter – LabelSupply is actively considering this option – and also to automatic knife setting (knives are currently set manually).

'In the longer term we want as much as possible to get the whole workflow automatic,' says Palle Jakobsen.

As part of this strategy Jakobsen wants customers to be able to enter their own orders. 'They should be able to go in and ask for any of their labels and see which other labels they are buying. They can see if their material is available and can ask to buy them now rather than next week if they can buy them cheaper. In this way we can use our downtime to customers' benefit. We might say that on Monday we will print PP, for example.'

Continues Jakobsen, 'Currently we have traditional customer service representatives. In the longer term it will be like with the doctor – you no longer call, you book a time online.' Jakobsen and Werosys are currently talking to potential partners about this future roadmap.

'Of course this does not mean we stop talking to customers,' reassures Jakobsen. 'We can ask a customer if we can change their delivery date if we have an emergency job for example, and people always want to help. Or you discuss fixed interval delivery periods and not specific dates. There are so many ways to work together to make things better for us all. But you should call customers and not take them for granted. You must have a person on the first order to discuss it with the customer – do they want varnishes and so on, but the second time they order it is handled automatically.'

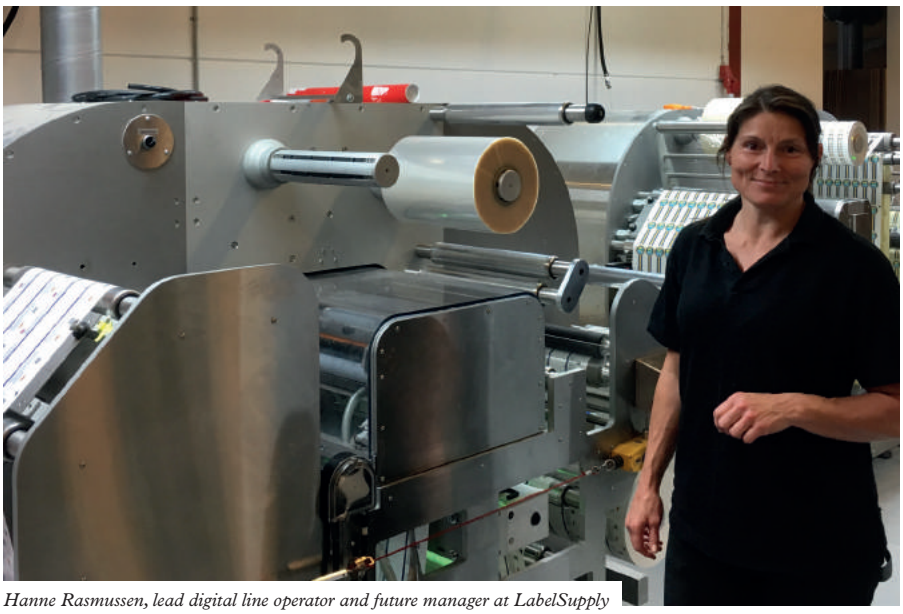
Bjarke Gerdes-Nielsen explains how Werosys' finishing line fits into this automated workflow strategy. 'Werosys were the first people to push information back into the management information system from the finishing line, and not just from the press. So this gives you all the data required for job costing and estimation.

'There are so many ways to use this information flow. For example the operators can have a screen showing production rates and upcoming orders and how much they are behind and above their schedule. They then say "how good can we be today", so you're competing with yourself and this motivates employees. Operators get a benefit from helping their colleagues when information is shared.'

Continues Gerdes-Nielsen, 'I know one company where after 10 minutes of production problems the machine itself automatically calls maintenance! So the operator does not have to make the tough decision to call maintenance and that becomes a positive thing.'

Automation brings other production advantages, says Gerdes-Nielsen. 'If you do not manually adjust pressure, nobody can ruin the tools by clumsy actions. We see that if the tools are not cutting good enough, operators will just add more pressure. But this won't help and you put more pressure on the machines. This is exactly what you used to do on flexo presses. It fixes problems in the short run but ruins the machine. So automation takes that out of the equation.'

Remote maintenance also promises major gains for converters, as Soren Pedersen explains: 'Big Data monitoring is the future. We can already do this in the Cloud and monitor if something starts to act differently – like the temperature rises in a motor so we recommend changing the bearing or motor. That's why all our machines are servo driven and Industry 4.0 ready - all these monitoring capabilities are in the system today. The potential downside is data overload. Converters need to be told simply what needs to be done this month and what to plan for next month and what needs to be looked at now.'



Hanne Rasmussen, lead digital line operator and future manager at LabelSupply

"After in-line varnishing, the web is rewound and moved to an off-line die-cutting and slitting unit. It makes sense to have all the printing equipment together and the cutting and finishing as a separate part"

Into the future

As a man with such a strong vision, what does Palle Jakobsen see LabelSupply looking like in two years' time?

'We will have one more Xeikon – and perhaps two – with finishing handled by one automated finishing line. We will have our production plan on a computer screen at each machine so operators can see what orders are coming and what is the pipeline, and at what stage is the job – approval at customers for example – and how many running meters is the job, and when is maintenance due. And customers will place and follow their orders in real time. And all this is automatic.'

At the same time, LabelSupply will continue to run its conventional flexo printing operation.

'This is why we have flirted with different workflow solutions – because customers also need advantages in traditional production,' says Werosys' Gerdes-Nielsen. 'We can automate file generation to set up the finishing line, but we could also say this job needs to be produced traditionally on an existing flexo press.'

Continues Gerdes-Nielsen, 'Very important is we do not assume everything is automated - it has to fit around what you have. So if you don't have automated knife positioning we can guide the operator through the setup process. We can place a barcode on the die cut plate as a check it is the correct die being loaded.'

Palle Jakobsen has been a visionary leader in the label converting industry since his days at Interket. He continues to have a strong vision for a future in which automated intelligence is used to empower rather than replace skilled employees. And he demonstrates that this can be achieved in a relatively small-sized label company without the huge resources of the bigger industry players.

As a sign of his faith in the future of the industry, Jakobsen took three key operators with him when he resigned as chairman of Scanket to set up LabelSupply. They are now being trained as future owners of the company when he does finally decide to retire. And in an industry which is still heavily male dominated, it is a healthy sign that one of these is a woman, Hanne Rasmussen, who is also lead operator of the Xeikon-Werosys press line. We will follow the progress of this converter with interest.

For more information on LabelSupply go to: http://labelsupply.dk/kontakt-2.html