



eProductivity Software upgrade project at DS Smith Launceston sees improved corrugator performance

DS Smith needs little introduction. As one of the largest vertically integrated paper and corrugated packaging producers in the world, the company has grown significantly over many decades through acquisition as well as building state-of-the-art greenfield plants. With a geographic spread that encompasses Europe and North America, the company prides itself on producing a fully sustainable and recyclable packaging product, in the form of corrugated board packaging.

Award winners

Located in Cornwall in the south-west of England, DS Smith runs an award-winning corrugated board plant in the small town of Launceston. It is well known in the industry for designing and manufacturing high end and niche packaging solutions for a wide range of industries, but is particularly noted for producing insulated and water-resistant trays for the shipping of fresh and chilled fish. The facility is a typical “legacy” plant, which has had to be adapted over the last few decades to allow it to accommodate faster and wider equipment.

Invariably, with equipment that has been running for some time, issues start to arise. On the combination Medesa-Fosber corrugator, the company was looking to increase the overall speed of the line, while keep an eye on reducing waste. “We were starting to see warp and delamination figures rising as we started to increase operating speeds,” explains Shane Hooper, corrugator - waste coordinator, DS Smith Launceston. “We needed to get these two processes under control, a major part of which was through temperature setting and more importantly our knowledge and understanding around the hotplate shoe control settings.

We identified that there was a knowledge gap and with team planning, our discussions focused on where we could improve and upgrade our system if this was deemed necessary for improvements.”



Challenge :

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SHANE HOOPER,

Corrugator - Waste Controller

So began detailed discussions with eProductivity SoftwareEscada, allowing Shane Hooper and his team the time and level of detail needed to assess the various options and solutions. “We arranged a full site audit, which resulted in a report from the team at eProductivity Software Escada on what options were available to us,” continues Hooper. A full site and comprehensive system audit is a specific service offered by eProductivity Software Escada that is tailor-made to help customers identify key areas of improvement around the corrugator and processes.



DS Smith is a leading provider of corrugated packaging solutions worldwide. The company operates across 34 countries and employs around 30,000 people.

In order to support its corrugated packaging operations, the company has a recycling business that collects used paper and corrugated cardboard, from which its paper manufacturing facilities make the recycled paper used in corrugated packaging.

The business was founded in 1940 by the Smith brothers in London. For the fiscal year 2019/20, the group generated revenues of £6,043m.

“Our customers want broader reaching solutions to their packaging needs; innovation and processes that will help them reduce waste, cost and complexity from their supply chains,” according to DS Smith’s CEO Miles Roberts.

“By using our expertise from design to production and supply to recycling, we can offer high quality, environmentally friendly, innovative solutions and great service that looks at the whole of our customers’ packaging needs, not just one part. We call this ‘Supply Cycle Thinking’.

It is a unified approach to remove complexity from, and simplify, our customers’ supply chains.”

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This service leverages all of the eProductivity Software team’s collective experience with optimising corrugator productivity, to help identify improved working practices and deliver a comprehensive list of actions customers can make to improve their machine performance and productivity. “With this detailed document, we fully understood what we needed to do,” says Hooper. “Once we started the ball rolling on planning and project implementation, it really did not take that long for eProductivity Software Escada to deliver and install.”

Project focus

The project was broken down into several key areas, including training, equipment upgrades, process control enhancements– all centred around eProductivity Software Escada Syncro 7, a single point corrugator control system that can cover everything from roll stands through to take-off conveyors. Syncro 7 ensures harmonious operation through flexible interfaces to any mixture of machines, delivering maximum performance every time. At DS Smith Launceston, the project involved completing the following tasks:

- Overall training;
- An upgrade of the Medesa single facer temperature sensors that were monitoring the liner; they were replaced with new Raytek sensors. These sensors withstand higher temperatures and do not require a permanent air supply, which helps reduce overall costs;
- An upgrade to the Syncro control system with ‘contact time’ wrap arm control installed. This enables DS Smith Launceston to control the line using a dynamic curve, which automatically adjusts for each paper type that is being run — removing the need to manually define and configure speed curves. This required an onsite visit by the eProductivity software Escada team to measure all of the wrap arms and pre-heaters to ensure the control in each area of the machine was correct;

Solution :

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SHANE HOOPER,
Corrugator - Waste Controller



The process of transitioning DS Smith to eProductivity Software Escada Syncro 7 was broken down into several key areas including training, equipment upgrades and process control enhancements that have, since installation, already provided the company an increase in board quality and reduced warp, improved speed changes, and consistency.

The shoe control mechanism was also improved, giving the corrugator team at DS Smith Launceston more control in the hot plate section.

It did not take long for eProductivity Software Escada to install everything, once the project plan was agreed. “Essentially, it took a weekend to install the software and complete the measurement review,” explains Hooper.

“eProductivity Software Escada were then on site for three days after this to adjust settings and watch the running process to see the shape of the board.

We then had a gap of around six weeks where eProductivity Software Escada let us watch our own system and report back any issues we had before coming back to site to go over the training and tweak the system further. These final adjustments took an additional three days or so.”

Result:

“Since the upgrades, restart waste, warp and delamination and speed changes have all improved.”

SHANE HOOPER,
Corrugator - Waste Controller

Good return on investment

“As our work mix has shifted to a large quantity of high added value work in the past few months, including tapes, coatings and short runs, it is a little bit hard at this moment to say exactly how fast the ROI will be,” notes Hooper. “But even in a matter of months, we have without doubt seen improvements throughout the corrugating process, noticed an increase in board quality and reduced warp, which should allow us to calculate a true ROI. We have certainly been happy with the upgrades and it has been worth all the efforts from both teams at eProductivity Software Escada and DS Smith.

“It has been a great project and very rewarding to see the results,” he adds. “The clarity reporting within our plant is now excellent. Since the upgrades, re-start waste, warp and delamination and speed changes have all improved, and there is much less variation in the shape of the reports. Our case deflection performance is still one of the best in group, so we have not seen any negative impacts following this roll-out.”



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eProductivity Software is a leading global provider of industry specific business and production software technology for the packaging and print industries. The company's integrated and automated software offerings and point solutions are designed to enable revenue growth and drive operating and production efficiencies. eProductivity Software is headquartered in, Pittsburgh, Pennsylvania, with offices worldwide. With over thirty-years dedicated to delivering best-in-class technology to the packaging and printing industries, it is the company's deep held philosophy that eProductivity Software succeeds when its customers thrive. For more information, please reach us at contact@eProductivitySoftware.com

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