Georg Riva

How a Palletizer Increases Your Productivity

Want to cut your man-hours in saddle stitching by half? „Impossible," you will say – „very possible," is my answer. Because by using a palletizer from Solema, you not only increase the automation and therefore the production reliability of your saddle stitching line, but you also need significantly fewer personnel.

Muller Martini and Solema have been linked by a strategic partnership since 2010. We have a very good, friendly and trusting working relationship. It's a classic win-win situation: we can offer our customers complete production lines from a single source, as well as suitable upgrades to existing systems – Solema meets our technology requirements perfectly and benefits from our local presence in the markets.

Eleven years after it began, the partnership between the two market leaders remains as relevant as ever. Logistics and automation solutions from Solema are an integral part of Muller Martini systems in various production segments. This is because the trend towards more automation is omnipresent. And it is a major challenge in the graphic arts industry to find well-qualified personnel.

Greater automation has a massive impact, particularly in three-shift operation

You may be wondering what the argument is for using a Solema palletizer behind a saddle stitcher in the first place. You can almost give yourself the answer to this question with a view to your personnel. If you operate a saddle stitcher, softcover or hardcover line without a pal-

letizer, you have two options. Either you have one person at the line for inserting the sheets and unloading the finished products – with the consequence that you produce more slowly.

Or you have several people on the machine for loading and unloading – and thus both higher costs and a higher risk of downtime. With a palletizer, on the other hand, you need fewer people, which means lower personnel costs and higher automation – which has a massive effect, especially in three-shift operation.

The use of a palletizer is particularly worthwhile for repetitive processes, because a higher degree of automation – you may be familiar with the (admittedly somewhat exaggerated) slogan „automate or die" – pays off even more. However, a high level of automation not only saves on personnel costs and leads to less stress for the operators, but also ensures higher net output and significantly less waste thanks to the setup of the plant at the push of a button (keyword: zero make ready) and thanks to the continuous production flow.

And let's not forget: Automation also always leads to higher production reliability, more stable production and higher quality because there are fewer manual errors. The fact that all Solema machines can be integrated into Connex, the proven workflow system from Muller Martini, also fits in with the theme of automation.

MiniPluton and Pluton

Two Solema palletizer types are suitable as peripheral systems behind Muller Martini lines to increase automation: the MiniPluton (maximum 20 kg per stack / maximum 15 stacks per minute / one pallet in the magazine) for medium runs – the Pluton (maximum 25 kg per stack / maximum 25 stacks per minute / up to seven pallets in the magazine) for medium and long runs.

However, Solema components are also often used upstream – for example, the Fastbook automatic feeding system with Autoload . And in the case of the Ventura MC, the so-called Connect system, which links several book sewing machines together, is a joint solution from Muller Martini and Solema. There are also special transport solutions from Solema.

Solema systems can be connected to all Muller Martini systems in all production areas – even older models. Palletizers are still mainly used behind softcover and hardcover lines. But this topic is also very hot in the saddle stitching sector. And what is extremely interesting: 95 percent of all customers who have invested in a Solema palletizer subsequently buy a second one because of the positive experience and the increase in productivity.

Tipolito Moderna: three palletizers behind three saddle stitchers

Take Tipolito Moderna, for example. The graphic arts company in Due Carrare, Italy, near Padua, finishes a wide range of publishing products in offset and digital printing. These include many short- and medium-run saddle-stitched products produced on three Primera C130 presses installed in 2011, 2014 and 2019, each with six feeders and Perfetto compensating stackers. Before the palletizers were installed, the finished products – which amounted to more than 15 tons per shift (!) – had to be unloaded and palletized by hand. In addition, there was the insertion of intermediate layers and the preparation of the next empty pallet. In short: extremely hard work for the operators.

The management therefore decided to abandon the common belief that end-of-line automation is only effective when applied to high value products, such as large-format hardcover or softcover books. And so – after already adding a mini-pluton to the other two saddle stitchers – a palletizer was also added to the third Primera C130 in August 2020 (for details, see this video).

Tipolito Moderna is thus the only company in Italy to have three Primera with mini-pluton in operation. With its saddle stitcher upgrades, the successful company achieved two goals at once. Firstly, work is now much simpler and easier for staff. Second, a Mini-Pluton pays for itself in less than three years because production speeds are now much faster (see).

Saving 7,200 man-hours per year

I can show you how quickly your investment in a Solema machine will pay for itself with an example. You use a Primera, Prima or Bravo saddle stitcher from Muller Martini in three shifts with a production speed of between 8,000 and 10,000 cycles per hour, and a MiniPluton from Solema that produces 15 bundles per minute. Before the palletizer was installed, you needed two machine operators per shift for the complete line – in other words, six machine operators per day. With 50 working weeks, this corresponds to 14,400 man hours.

After commissioning the palletizer, one machine operator per shift is sufficient for the complete line – i.e. three machine operators per day. With 50 working weeks, you reduce your man hours to 7,200. Depending on the number of shifts and the costs for your machine operators, you can achieve a return on investment in less than three years.

Have I aroused your interest with my explanations and do you want to know how quickly you can amortize a palletizer on your saddle stitcher? Contact us and we will be happy to calculate this together with you!

Your
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