Confidence in operational reliability

Double the capacity, fully utilised lorries at last and maximum operational reliability –Smurfit Kappa in Neuburg an der Donau is very pleased with a channel baling press from HSM. At the corrugated cardboard plant, the "HSM VK 7215" has been pressing cutting waste into bales weighing more than half a tonne since September 2014, thereby ensuring smooth operation of the plant. For their process, Smurfit Kappa has quite special requirements for the baling press.



In the past, one bale of cutting waste at Smurfit Kappa in Neuburg weighed 380 kg. Today it is 520 kg - for the same size of bale. This is made possible by the high compression capacity of the HSM VK 7215 baling press. This has significant advantages for the transportation of bales to the paper factory for recycling. On the whole, there are fewer bales, the forklift truck can make fewer trips and lorry utilisation to the paper factory has increased by 30 per cent. "The under-utilisation of the lorries is now finally a thing of the past for us", said Rüdiger Graf, operations manager at Smurfit Kappa in Neuburg an der Donau. And the results exceed the predictions.

Although the VK 7215 is actually supposed to produce bales weighing 480 kg, the cardboard bales in Neuburg are now registering 520 kg on the scales. Graf said, "These are all economic advantages which bring the machine's ROI down to less than three years."

48 tonnes of cutting waste - per day

These are large volumes, but they are unavoidable. Smurfit Kappa in Neuburg produces up to 48 tonnes of cutting waste every day. The Bavarian plant of the



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international Smurfit-Kappa Group (42,000 employees, 8.1 billion euros annual revenue) has specialised in the food sector, particularly dairy plants. With 180 employees, the plant typically dispatches yoghurt trays and boxes for transporting milk packaging. Cutting waste is not put into temporary storage but is moved directly from production to a baling press to be transported to one of the Group's paper factories for recycling. Rüdiger Graf describes the requirements on the paper press at the end of the production line, saying, "If the baling press malfunctions, the entire production comes to a standstill." In a plant which produces round the clock from 6am on Monday to noon on Saturday, there are, understandably, maximum requirements regarding the operational reliability of a baling press. He continued, "The disposal process must run absolutely smoothly."

After 20 years of operation, the existing baling press in the corrugated cardboard factory had reached the end of its life. Downtime was increasing, so that the search was on in Neuburg for a successor. Rüdiger Graf explained that several suppliers were in the race and that all machines were evaluated according to a points system and observed in use at reference customers. He said that two small HSM presses had already been running at Smurfit Kappa in Neuburg for some time and that they had had "good experience" with them. This assessment was verified in the new selection procedure. As explained by the operations manager, HSM was not only well ahead in the points process, but also as the result of a visit and the assessment of the company's own maintenance and service technicians. Price was not the only factor; the entire service package which was offered by the





manufacturer from Frickingen, Lake Constance also played an important role. Particularly on the subject of reliability, Graf said, "We simply had a high level of confidence in the operational reliability of the HSM press."

Hydraulic fluid from aircraft engines

"Implementation of the new investment in Neuburg was not easy. HSM could not simply take the "VK 7215" from the assembly line and leave it with us", said Graf. The HSM channel baling press is much larger than the replaced machine, but had to get by with the space available, in particular, fitting in with the current ventilation technology. In turn, HSM had to make centimetre adjustments to the machine on-site at various points. As a supplier to the food industry, Smurfit Kappa also has high requirements regarding health & safety and risk management. For the HSM baling press, this meant that instead of the usual hydraulic oil, they had to work with a fire- resistant fluid which was specified by Smurfit Kappa, and which is normally used in aircraft engines. HSM modified the machine accordingly and enabled the use of this hydraulic fluid for the first time.

Commitment even after commissioning

The standard use of high-strength steels in the baling press also met the requirement for high wear resistance, since corrugated cardboard is a very abrasive material. Graf praised the work, saying "the adaptation to our interfaces also ran without any problems." And the supplier also showed commitment even after commissioning. When it transpired that the wire feed had to be modified, HSM promptly arranged this. And lastly, Graf was also satisfied with the commissioning. Since HSM was able to install the baling press in two days instead of three, the Bavarian plant could start production again half a day

The facts

Company

Smurfit Kappa has 42,000 employees and is one of the world's leading providers of paper-based packaging solutions. The plant in Neuburg/ Donau has specialised in the production of multicolour, printed and punched sales and dispatch packages.

Task

Smurfit Kappa in Neuburg needed a reliable baling press for the disposal of larger volumes of cutting waste. Among other things, the new baling press had to tightly compress the cutting waste, get by with the limited available space and be able to work with a prescribed fire-resistant hydraulic fluid.

Solution

Following a thorough selection procedure, Smurfit Kappa decided to purchase the HSM VK 7215 channel baling press.

Advantages

- Doubling of press capacity
- Better utilisation of lorries thanks to higher compression of the cutting waste
- High press reliability provides maximum operational reliability
- Energy efficiency according to ISO 50 001 thanks to frequency-controlled hydraulic controller
- Food-safe operation with a hydraulic oil specified by Smurfit Kappa
- Smooth adaptation to local conditions, also following commissioning



earlier than planned. HSM guarantees customers a machine availability of 95%, thanks to their local presence and extensive HSM service network.

Today, Rüdiger Graf is enjoying an increase in capacity. The previous machine managed four tonnes per hour while the new one manages twice as much. This capacity is not currently being used so there is further room for development of the site. Smurfit Kappa is saving money from the higher bale compression, from lorry transportation and from energy costs. Thanks to the freguency- controlled hydraulic controller, Smurfit Kappa is also seeing benefits in energy management in accordance with the ISO standard 50 001. Graf also said that, not least, the "sophisticated safety system" of the VK 7215 fully met all their expectations.

Summary in Neuburg an der Donau. In the words of Rüdiger Graf, the channel baling press "Made In Germany" has led to a return on investment (ROI) of less than three years. He therefore rates the collaboration with HSM as "very cooperative and very successful".

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