

Case Study: HSM channel baling press at Halter Rohstoff AG

Efficient, sustainable and quiet

"Today, we have one of the most powerful machines on the market." Following a thorough selection process, Hans-Peter Kremer, technical developer at Thommen AG is sure that he made the right choice with the fully-automatic channel baling press HSM VK 12018 R-FU. The machine from HSM is unbeatable in terms of robustness, efficiency and reliability. However, while searching for a successor to a 20-year-old pre-press flap press, Thommen AG had some surprises.

With eleven sites, Thommen AG is one of the leading recycling companies in Switzerland. The subsidiary Halter Rohstoff AG in Biel collects and compresses pre-pressed cardboard (B19) and loose plastic sheets. Annual volume: 25 000 tons. After 20 years, one large-format baling press was a source of growing concern at Halter Rohstoff AG. The cost of maintenance and replacement parts increased significantly, reported Hans-Peter Kremer, so it was time to look around for a new baling press for the site in Biel. Important criteria in the selection were machine robustness (statics, wear), industrial safety, energy consumption, write consumption, noise level and maintenance effort - in addition to technical competence of the future supplier and, of course, the price. Following an intensive pre-selection process, technical developer Hans-Peter Kremer still had two providers on the short list and planned reference visits. The first hurdles already appeared at this

early stage, he said. One provider only offered references that were located far away, the second reference no longer wanted their machine and offered to sell it to Kramer during the reference visit. "It wasn't exactly ideal", recalls Hans-Peter Kremer today.

Convincing reference customers

Mr Kremer then made contact with HSM after reading about the company in an article in a recycling trade journal. He was "very impressed" by a visit to the HSM plant in Salem, Lake Constance and saw how high the share of in-house production is at HSM. "Made in Germany" is very important to the recycler and, especially, to his boss Dr. Tobias Thommen. Also, after having made several reference visits to HSM customers in south Germany, Mr Kremer returned satisfied to the Thommen headquarters in Kaiseraugst near Basel. Among others, he went to a company which has been



pressing the entire range of materials in constant alteration with a large-format channel baling press from HSM for seven years without complaint. "I saw how well the machine works under high stress during everyday operation".

And, during the visits, he was able to "debunk some sales talks". Market participants had told him that machines with pre-press flaps are indispensable, but the visits showed Hans-Peter Kremer that the cutting edge technology from HSM "works very well" and that the higher costs of a pre-press flap machine can be saved. Kremer's summary: "There is a lot of nonsense being told on the market". He is convinced by the cutting edge technology because it means a gain in time and is, moreover, less expensive to buy.

"HSM stands by their product"

Thommen AG did not hesitate in making clear demands on the new machine supplier. It was agreed that the machine would be returned and penalty payments would be due if product promises (throughput, bale weight, electricity consumption, etc.) were not kept. Only HSM was willing to make these promises in writing. Thus, it was clear to Hans-Peter Kremer "that HSM stands by its product and behind the advertised achievements".

It was precisely these product characteristics, which allowed Thommen AG to finally order the VK 12018 R-FU (120-ton pressing force, 180-centimetre filling opening length). It is a long-lasting, robust and efficient system, says Hans-Peter Kremer. The HSM press has low operating costs (electricity, wire) and it runs quietly. In addition, it complies with all current regulations on occupational safety. All this leads to a "very good price-performance ratio".

Savings in wire and electricity costs

At Halter Rohstoff AG, the bales were previously strapped vertically with five wires, and today only with four wires using the same wire strength, saving 20 percent. For certain materials, a fifth wire can be easily and quickly connected.

The Swiss operators also opted for a stepless frequencycontrolled drive of the HSM VK 12018. In combination with the HSM pump concept, this leads to a significant energy saving of around 50,000 kilowatt hours/year - in continuous operation compared to the old uncontrolled drive. With this combination, only the HSM machine already reaches the energy efficiency class IE 4, says Kremer - even though IE 3 will only become a legal requirement in 2017. Hans-Peter Kremer: "The HSM press is almost a full step ahead of the legislation." At Thommen, it is expected that the electricity savings of one machine over 20 years will amount to one third of the purchase price of a new press. "As a large-scale consumer, the energy saving with this machine is remarkable", says Kremer.

He likes the fact that the HSM product is consistently geared to a long service life. The stress-free, cardanic suspension of the press cylinder, for example, prevents stresses and tilting, so no expensive cylinder replacement is expected. Additional wear plates made of high-strength XAR500 steel make it possible to exchange only these plates, but Hans-Peter Kremer is not expecting this: "With our material, the sheets last 30 years". However, he finds it good that Halter Rohstoff is equipped with this machine for stronger wear - should any other materials be pressed in Biel at some point.

There is also an advantage in the logistics: Since the new bales are about 150 kilograms heavier than the old bales with the same bale volume, the trucks can be loaded faster. Kremer said "This reduces warehouse volumes, loading time and overall handling costs". Materialien gepresst werden.

More room in the hall

The collaboration with HSM in the project phase right up to acceptance is described by the Swiss recycling company as "professional and passionate". HSM is fully committed with blood, sweat and tears and is also creative. For example, HSM suggested that the customer in Switzerland change the machine location in the hall when changing to the HSM VK 12018. This resulted in more space for Halter Rohstoff AG.

In the first months after commissioning, the HSM customers in Biel did not experience any serious disruption. Smaller glitches had been fixed quickly, says Kremer. And when a problem occurs, it can be solved quickly. Either via the remote maintenance function over the Internet or through the on-site service, which is very present at HSM. Hans-Peter Kremer is therefore reassured: "It is very important for us that the supplier guarantees a short intervention period".

Company

Halter Rohstoff AG in Biel is a specialist for metal and paper recycling. It is a 100% subsidiary of Thommen AG. Thommen is one of the leading recycling companies in Switzerland and has around 80 employees.

Task

At Halter Rohstoff, the central channel baling press with a pre-press flap had become aged, so the company had to look for a replacement. The criteria for a new machine: machine robustness, work safety, energy consumption, wire consumption, noise level and maintenance effort, as well as technical competence of the supplier and price.

Solution

Following a selection process, Halter Rohstoff and Thommen AG opted for the channel baling press HSM VK 12018 R-FU from HSM.

Advantages:

- High degree of in-house production at HSM with maximum "Made in Germany" share
- On-site presence both during the project phase and service
- Convincing reference customers, high technical competence during the project phase
- Cutting edge principle with advantages in operation
- Product promises are guaranteed by contract
- Frequency-controlled drive saves electricity and reduces wear
- Wire consumption falls by 20 percent
- Machine with long service life
- Heavy bales: Warehouse logistics are optimised.

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