

FOCUS 23

Hunkeler
SYSTEME

Economically sustainable waste disposal on punching machines

Shredding technology from Hunkeler Systeme works economically

The operating costs of extraction systems on die-cutting machines can be reduced thanks to innovative shredding technology from Hunkeler Systeme AG. „Downsizing“ is the keyword.

► The energy consumption of extraction systems on die-cutting machines is a cost factor that must not be neglected. By shredding the production waste directly at the stripping and at the blanking station, the diameter of a pipe can be massively reduced. The air volume for transporting the waste is reduced accordingly. In the case of a die-cutting machine for sheet format 106, this is up to 60 per cent, and the energy consumption of the extraction system is consequently reduced by up to 50 per cent.

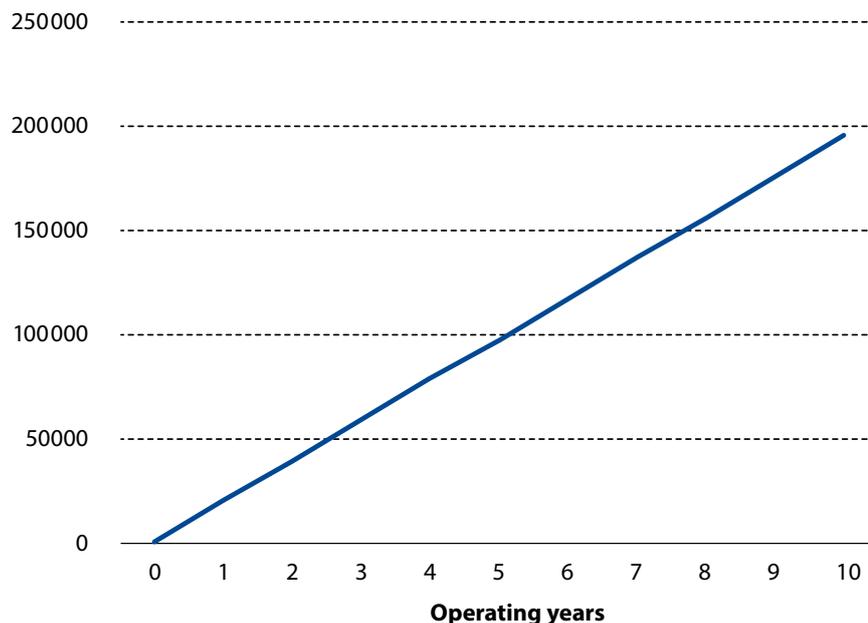
For energy-efficient disposal of production waste on die-cutting machines, Hunkeler Systeme AG has developed the SAZ stripping waste shredder and the SZM shredding module.

The SAZ shreds the production waste at the internal stripping station, the SZM shreds the waste grids and the gripper margin. Both shredding systems work reliably, require little maintenance. Thanks to a robust design they are very durable.

Calculations show that thanks to the waste shredding technology from Hunkeler Systeme AG and a corresponding “downsizing” of an extraction system, up to 19,500 Swiss francs/euros can be saved in energy costs per year of operation. These cost savings each refer to a die-cutting machine producing in 24/5-hour operation. The calculation is based on a price of 0.25 Swiss francs or euros per kilowatt hour.

Savings in energy costs with shredding technology from Hunkeler Systeme

CHF/Euro



Shredding the production waste directly at a die-cutting machine can reduce the annual energy costs of the extraction technology by up to 19 500 CHF/Euro. The calculations are based on an assumed price of 0.25 CHF or Euro per kilowatt hour.



The SAZ stripping waste shredder shreds the waste at the centre break-out station.



The SZM shredding module was developed for energy-efficient disposal of the waste grids and gripper margin.



Dear customers and partners,

Since January 2023 I have now been managing Hunkeler Systeme AG. Together with my team, we are on track in the implementation of our strategic goals.

We continue to focus on the automation of various production processes, the development of advanced dedusting systems and the construction of energy-efficient disposal plants.

Our Greenline concept plays a central role in energy efficiency. On page 1 of this Focus magazine, we explain the advantages using a practical example from packaging production.

Service and support are also very important. In this way, we want to ensure the high availability of our systems and offer our customers first-class support.

Hunkeler Systeme AG is currently very busy and is working on many projects. We are in the fortunate position of being able to serve our customers in the best possible way, even in an economically challenging market environment, thanks to a broad and innovative product range.

At this point I would like to express my sincere thanks to all our employees. Their commitment and expertise are crucial to the success of our company. I would also like to thank our valued customers for their trust and long-term cooperation.

Now I hope you enjoy reading the current issue of Focus with its interesting articles from the various market segments.

Kind regards
Erich Hodel, CEO

Läser AG, Gontenschwil (Switzerland)

Extraction technology disposes of plastic strips

Läser AG in Gontenschwil produces labels from flexible material on a slitter rewinder. For the disposal of the edge trim and the intermediate cuts, the concept of Hunkeler Systeme AG was convincing.

► Läser AG produces labels on a new, highly automated slitter rewinder. Hunkeler Systeme AG was commissioned with the system concept for the disposal of the edge trim and the intermediate cuts.

Five to fifteen millimetre wide plastic strips have to be shredded at a web speed of at least 600 metres per minute and disposed of via pipelines. A compact suction unit of the HKU 4500 series ensures a stable process with constant suction performance. In the cutting unit, the plastic strips are shredded to a defined length. Ring ionisers neutralise the static electricity on the shredded strip and ensure continuous transport of the material to the separator.

Dr Andreas Hitzler manages the business of Läser AG. The concept of Hunkeler Systeme AG convinced him. "The company has proven that it can also handle the demanding disposal of plastic material," he states.



A constant suction performance and ring ionisers ensure a smooth and stable process when disposing of the plastic material.



At a web speed of 600 metres per minute, the plastic strips are shredded in the cutting unit and disposed of via pipelines.

HKZ-700 cardboard shredder increases productivity

Smurfit Kappa MNL Golfkarton B.V. has equipped a Bobst Mastercut 2.1 die-cutter with an HKZ-700 cardboard shredder. The shredder ensures smooth disposal of even long gripper margins.

► Smurfit Kappa MNL Golfkarton B.V. produces on four lines from Monday to Friday in three shifts. On a Bobst Mastercut 2.1, an HKZ-700 ensures stable non-stop operation. The shredder shreds gripper margins up to 150 millimetres width, and an extraction system removes the shredded waste from the production area.

„The HKZ-700 is a robust system that works reliably and fulfils its purpose one hundred per cent.“

John Wijnants, Production Manager

The system convinced him during a machine inspection, says production manager John Wijnants. And the HKZ-700 has proven itself in practice. In combination with other measures, the productivity on the Mastercut 2.1 could be increased significantly.

Reliable, robust technology and trust in the supplier and its service are the most important criteria that John Wijnants bases his investment decisions on. “We strive for a relation-



The HKZ-700 shredder also shreds larger gripper margins with widths of up to 150 millimetres without any problems.

ship based on partnership. That is very important for the cooperation.” In this respect, he gives Hunkeler Systeme AG high marks. “Despite difficult conditions due to the pandemic, the communication was good during the project, and tasks were done in an exemplary manner.”

Suisse Public 2023, Bern

From 6th to the 9th of June, Hunkeler Systeme AG was present in Bern at the Suisse Public, the leading Swiss trade fair for the public sector. Our customers informed themselves about the trends in waste management. The automated waste disposal yard was of particular interest (see on the right side). Visitors were able to see on site how processes in a modern waste disposal yard can be digitalized and automated.



Suisse Public 2023 was a success, and we were able to take on interesting orders.

We are thankful for the visits at our booth and the interesting discussions, and we are looking forward to continuing successful partnership.

The automated waste disposal yard

In the automated waste disposal yard, the processes are digitalised. From the registration of customers at the entrance to the payment process, all procedures are automatically controlled. Waste which is subject to charges is weighed at specific stations and charged transparently and according to the polluter. The system software of Hunkeler Systeme AG records all relevant data, which can be statistically evaluated. All disposal processes and transactions can be tracked back at any time.



The automation concept is equally suitable for public and private disposal yards and can be integrated into EPR systems and cash register systems.

Highly reliable in tough 24/7 operation

For almost 25,000 hours, a press compacted grinding sludge into briquettes. Now it has been replaced by a new system. Technology and service from Hunkeler Systeme AG were convincing.

► In February, Scintilla AG replaced an older briquette press with a new model. Hunkeler Systeme AG was again chosen as the supplying partner. The reliable service provided by the company over the years was the key factor in Scintilla AG's decision to continue the partnership.

If the press is at a standstill, it soon becomes critical for production.

The press is the heart of the production plant. Fifteen grinding machines are connected to it. "If the press stops, it will soon become critical for production," says Samuel Truffer. He is the company's head of buildings and infrastructure.

There is no backup because there is not enough space. So the production plant has to be able to rely on the briquette press working stably, always in four shifts, 24 hours a day, seven days a week. Samuel Truffer knows from years of experience and good cooperation, that Hunkeler Systeme AG can guarantee this security.

7000 litres of cooling lubricant are recycled every day.

Up to 1.5 tonnes of grinding sludge are pressed into briquettes every day at Scintilla AG. The pressing process separates the cooling lubricant from the metallic grinding residues. The expensive oil contained in the coolant is returned to the process cycle and is ready for reuse on the grinding machines. Samuel Truffer puts the amount of cooling lubricant recycled at around 7000 litres per day.

The grinding residues leave the press as highly compressed briquettes. Compared to non-compacted material, the volume can be significantly reduced. This leads to comparatively low costs for transport and disposal.



The production must be able to rely on the briquette press working reliable, always in four shifts, 24 hours a day, seven days a week.

Since its commissioning in February, nearly 200,000 briquettes have left the new press.

Scintilla AG, a subsidiary of the Bosch Group, has been established in the municipality of St. Niklaus in the canton of Valais since 1947. The company, with its approximately 800 employees, leads the world market as a manufac-

turer of saw blades. As Samuel Truffer says, more than a million saw blades for the most diverse applications leave the production plant - every day. They are stamped out of sheet steel, sharpened, labeled, finished and packaged at the site in St. Niklaus and carry the name of a quality product all over the world.

"We have maintained a very uncomplicated collaboration with Hunkeler Systeme AG for many years. The service technicians are always there when we need support. For an intensive production operation like at Scintilla AG, this reliable support is essential."

*Samuel Truffer,
Head of Buildings and Infrastructure
Scintilla AG, St. Niklaus*



Process automation all the way to the pressed carton

In the logistics centre in Lucerne, processes are highly automated. The IT control extends up to the disposal of emptied cardboard boxes and their compression in a stationary compactor.

► In October 2022, Imbach Logistik AG put the first part of its new logistics centre in Lucerne-Littau into operation. This is an exemplary demonstration of how end-to-end process automation works.

Delivered articles are removed from the cardboard boxes at four workstations, repacked into standard boxes and fully automatically assigned to a free space in the small parts warehouse. A conveyor belt transports the emptied cardboard boxes to the outside area. There, a stationary compactor with a 32-cubic-metre container compacts the material. A tipping device allows 770-litre containers filled with cardboard to be emptied manually.



A conveyor belt (small picture) transports the emptied cardboard boxes to the outside area, where the boxes are compacted in a press container.

It is logical and consistent to fully automate processes from the delivery of the articles to the disposal of the outer packaging.

When Imbach Logistik AG planned the new logistics centre, it was clear from the very beginning that all processes had to be automated as far as economically feasible. In the interest of an efficient material flow, the automation concept also took into account the disposal of empty cardboard boxes. The logistics company's specifications stipulated that 7.5 tonnes of cardboard should be disposed of and compacted every month.

Hunkeler Systeme AG was awarded the contract to implement this part of the automation. Christian Kempter-Imbach, the logistics company's managing director, gives the following reasons: "The engineers from Wikon convinced us with their planning skills and intelligent implementation of the task at hand." He particularly emphasises the excellent benefit-cost ratio of the disposal system.

"The decision as to which company should realise the project was preceded by a thorough evaluation," emphasises Christian Kempter-Imbach. This is despite the fact that Galliker Transport AG (the parent company of Im-

bach Logistik AG) has a long-standing partnership with Hunkeler Systeme.

Logistics centre sets standards

Imbach Logistik AG is setting standards with its logistics centre. The small parts warehouse has 130,000 spaces for standard boxes. In addition, there are 6500 pallet spaces. To minimise space requirements, the two warehouses are arranged one above the other in one building. This results in a floor load of five tonnes per square metre. The logistics centre is scheduled for completion in October 2025. The total area will be 30,000 square metres.



"We wanted the highest possible degree of automation throughout the entire process chain, right up to the disposal of the cardboard boxes. Hunkeler Systeme AG was able to offer us exactly the product we wanted. We experienced the cooperation from planning to installation to commissioning of the disposal system as highly professional. It was a perfect engineering service."

*Christian Kempter-Imbach
Managing Director
Imbach Logistik AG, Lucerne*

On our own business

Two young talents strengthen the project management team



Dominik Meier is an experienced mechanical engineer with a degree as a technician HF (higher technical college). After his education, he worked for several companies as a mechanical engineer R&D and application engineer.

He has been working as a project manager at Hunkeler Systeme AG since August 2022. The wide range of tasks, which also includes system engineering, convinced the 29-year-old engineer.

Dominik Meier accompanies projects from checking the technical feasibility of a system to its planning, assembly and commissioning. In his role, he is responsible for smooth communication between the customers and Hunkeler Systeme AG.

Samuel Sägesser completed an apprenticeship as a mechanical engineer with a vocational baccalaureate. In spring 2023, the 28-year-old specialist successfully completed a part-time Bachelor's degree in mechanical engineering.



At Hunkeler Systeme AG, he develops customised concepts for waste disposal systems. He is responsible for ensuring that projects are carried out in a target-oriented manner and on schedule.

In Hunkeler Systeme AG, Samuel Sägesser has found a company where working as part of a team is part of the daily business. He is attracted by the international clientele and the individual approach to each project.

EcoVadis certificate at bronze level



Hunkeler Systeme AG has been successfully EcoVadis-certified for the year 2023. The company was awarded with the bronze medal.

The award certifies that Hunkeler Systeme AG fulfils its responsibility with regard to society and ecology.

EcoVadis is one of the world's largest rating agencies which assesses companies in terms of their compliance with corporate social responsibility.

Companies are evaluated in the categories of environment, ethics, labour, human rights and with regards to a sustainable supply chain.

Companies which are evaluated by EcoVadis have the opportunity to compare themselves with other companies within their own industry. In this way, companies spur each other on to continuously improve their performance.

To date, EcoVadis has rated over 100,000 companies in 175 countries.

Hunkeler Innovationdays 2023, Lucerne



After years of absence from the fair, the Hunkeler Innovationdays took place again in February. It was a large, successful trade fair. Many existing contacts were cultivated and new ones made. Exciting projects emerged from the discussions.

A technical highlight was the new Hunkeler Compact System HKS-4500 compact extraction system, which disposes of production waste in of two finishing lines simultaneously and enables containers to be changed in non-stop operation.

We would like to thank all those customers and partners who visited us at our booth at the new location in Hall 1 and look forward to seeing you again soon.

Impressum

Published by: Hunkeler Systeme AG · Industriestrasse 2 · 4806 Wikon | Switzerland
Phone: +41 62 745 77 77 · info@hunkelersysteme.com · www.hunkelersysteme.com
© Hunkeler Systeme AG · Use of contents is permitted only if the source is acknowledged.

