

# FOCUS

edition 16 | April 2019

Hunkeler Innovationdays 2019, Lucerne

**hunkeler**  
Hunkeler Systeme

## Premiers, Remote Support and tried and true disposal technology

At the Hunkeler Innovationdays 2019 in Lucerne, Hunkeler Systeme AG has confirmed their reputation as a leading supplier of disposal technology. Alongside the two premiers, the Remote Support concept proved to highly interest our visitors.

### Dust-free document destruction up to security level P4

At the Hunkeler Innovationdays 2019 in Lucerne, the new Document Destruction System HDDS 20 was introduced. The system destroys paper documents as well as electronic and optical data carriers (USB-Sticks, CDs, DVDs etc.). For the destruction of paper documents, the HDDS 20 fulfils the requirements for security levels P3 and P4 as given by the Norm DIN 66399. For electronic and optical data carriers, it meets every requirement for all relevant security levels. The HDDS 20 shreds 30 kilos an hour, no matter the material. It functions entirely dust-free and is ideal for document destruction in an office environment. The shredded material is compacted and expelled in the form of briquettes.



The new Document Destruction System HDDS 20 destroys paper in accordance with current security criteria.

### N as in Nonstop, and Needs little space

A second new development was the compact suction unit HKU 2000-N. The letter N stands for 'Nonstop Production Operation'; additionally, the HKU 2000-N is notable for its very modest space requirements.

Thanks to a short-term buffer, the suction unit requires only one waste container at a time. While a full container is being exchanged for an empty one, the buffer holds back the paper waste. The system need not be switched off during the change-over and the production line continues to operate without interruption.



Operates with only one hopper in non-stop production: the new Compact Suction HKU 2000-N.

### License-free Remote Service

Disposal systems from Hunkeler Systeme AG are connected to the support centre in Wikon via a secure internet connection. As soon as the system is released by a customer, the service technicians from Hunkeler Systeme AG can access the system controls in Remote-Mode. This means that the cause for an interruption can be quickly localised and corrected.

Thanks to remote analysis, faults and their causes are found immediately, a Log-File provides information concerning the system's condition. Should a technician be required on site, he can prepare what he needs before he leaves, taking with him all the necessary material and/or replacement parts.

As part of a contractual agreement, Hunkeler Systeme AG provides preventative maintenance of the disposal systems. This increases the reliability of the system. The risk of an unplanned production stoppage due to fault drops to virtually zero.



Dear Partners and readers

To be successful in the marketplace, we must fulfil several requirements. One of the most important of these is the close bond with our customers. The dialogue between our customers as users and our company as a supplier means that we can develop a product that is both relevant to the market and does what is required of it. Disposal technology from Hunkeler Systeme AG would not be so advanced if we weren't constantly interacting with our customers.

With several projects that we have recently planned and completed, an automatically controlled workflow was a central issue. Not only our engineering know-how at the mechanical level, but our competency in the development of interfaces and control software was the key to the fact that Hunkeler Systeme AG was awarded the contracts. It is crucial that we understand the customer's processes and demonstrate this in our overall concept. The basis for this success is this exchange with our customers, who give us ideas and motivate us to develop innovative solutions which fulfil the needs of the customer.

Often these conversations are shaped by a concern for the environment and how we deal with natural resources. Hunkeler Systeme AG is willing and able to carry responsibility for this, and has geared all internal processes according to Environmental-Management ISO 14001:2015. We take this responsibility extremely seriously, and have developed the Greenline Concept. It helps our customers to be effectively productive, energy efficient and economical simultaneously.

Hunkeler Innovationdays 2019, from the 25th to the 28th of February, was a wonderful opportunity to continue this dialog. We were able to welcome many visitors at our stand and enjoy interesting and inspiring conversations with them. We would like to thank everyone for their visit and look forward to working together with you towards innovation and progress in the future.

With warm regards  
 Kurt Käser, Managing Director

**Hunkeler Systeme AG works actively for an intact environment**

**Certification according to ISO 14001:2015**

The certificate ISO 14001:2015 confirms that Hunkeler Systeme AG directs their activities according to globally acknowledged environmental standards. Thanks to re-audits carried out at three-year intervals, permanent adherence to the required standard is guaranteed.



In January 2018, Hunkeler Systeme AG received the Environmental Management Certificate according to Norm ISO 14001:2015. It has been attested that the company fulfils globally acknowledged standards in engineering, in project management, in marketing and in installation of disposal technology.

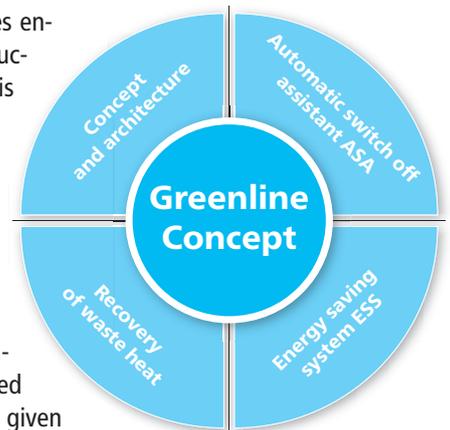
The Société Générale des Surveillances SA (SGS) accompanied and advised Hunkeler Systeme AG on their journey towards certification. The SGS-Group counts as one of the global leaders in certification and sets the standard for quality and integrity. Accordingly, the yardstick for achieving the Environmental Management Certificate was correspondingly high.

Hunkeler Systeme AG must re-confirm the certificate at three yearly intervals through re-auditing. This is necessary to ensure that the company's business culture remains true to the concept of working towards an intact environment and that the people working for the company have embraced a careful attitude to the world's natural resources.

**Greenline Concept: Saving Energy und Costs**

The Greenline Concept from Hunkeler Systeme AG reduces costs and protects the environment. The energy consumption of the suction system drops significantly, waste heat recovery supplies sufficient energy to heat or cool the production area.

The Greenline Concept significantly reduces energy expenditure and operating costs of suction and compaction systems. Its efficiency is based on four major features: Concept and architecture; Automatic switch off ASA; Energy Saving System ESS; Waste heat recovery.



- **Concept and Architecture:** suction systems from Hunkeler Systeme AG function efficiently due to an appropriately sized conduit system. For each machine, the conduit diameter is adapted exactly to the required air volume. For a given suction performance, comparatively low air volume is necessary. Hunkeler Systeme AG builds the suction systems with the negative pressure principle. Closed impellers achieve an efficiency of 80 per cent.
- **Automatic switch off ASA:** this ensures that a suction system is only in operation when suction is required. If production is interrupted or a new task begun, if the shift is finished or operation is stopped for the weekend, the ASA switches off the system automatically.
- **Energy Saving System ESS:** the ESS regulates the energy consumption of a suction system according to requirement. Compared to operation without ESS, the consumption of electrical energy can be reduced by as much as 60 per cent.
- **Waste heat recovery:** a suction system produces a valuable resource: thermic energy. The warmed air enables the production area to be heated/cooled in an energy efficient manner. During the colder time of the year, the need for other (fossil) fuels can be largely dispensed with.

## Large plant disposes of waste fully automatically

Al Nisr Publishing has equipped the printing centre near Dubai with a fully automated disposal- and compacting plant. Hunkeler Systeme AG was entrusted with the mechanical and software-engineering. Print waste, off-cuts, rest rolls and roller sleeves, wood, aluminium printing plates as well as synthetic foils are separated and sorted and then compacted in seven stationary presses.

In a printing centre outside the city of Dubai, Al Nisr Publishing produces newspapers and commercial printing jobs in coldset and heatset techniques. The production causes large quantities of diverse waste materials. Print wastes, cut-offs from trimming drums, rest rolls and roller sleeves from the printing machines, wooden pallets, aluminium printing plates and synthetic foils are separated and sorted according to type, and then compacted in a fully automated large plant disposal system.

to the skips via LGV. Even printed and unprinted paper are disposed of separately.

**The exact quantity of material to be recycled is always known**  
Seven stationary presses compact the material and transferred to a mobile container, which is then transported to the appropriate recycling point by lorry. Ten containers are always ready for the seven presses. This ensures that both production and the filling of the containers with the waste material is a nonstop operation. The weight of each of the containers is determined. Al Nisr Publishing always knows exactly how much of each material is delivered to a contracted recycling agent.

**Negative pressure assures efficient suction technology**  
The suction technology that is connected to the trimming drum functions with the proven negative pressure principle. The fan is



Al Nisr Publishing has fully automated the disposal of printing waste. No manual interference is necessary, from receiving the waste material at each production line to filling the container.



The disposal of rest rolls and roll sleeves, controlled by Laser Guided Vehicles, is in safe 'hands' thanks to an interface programmed by Hunkeler Systeme AG.



Ten containers serve seven stationary presses. This ensures that both production and the filling of the containers with the waste material is a nonstop operation.

### Fully automatic, right into the container

The Swiss engineering company, Hunkeler Systeme AG, planned, conceived and installed this large system. Included in the contract was not only the entire mechanical installation but also the development of the interfaces to the LGV (Laser Guided Vehicle). The disposal and compaction system works fully automatically from taking the waste from the respective production lines to filling different types of waste in the container. At no single point is manual intervention in the process necessary.

### The appropriate conveyance method for each type of material

To dispose of the various materials as efficiently as possible, the most appropriate transport method is used: conveyor belts from the printing machine move the printing waste; the cut-offs from the trimming drum are removed from the production area by pneumatic, negative pressure suction; aluminium printing plates, rest rolls and roll sleeves, wood pallets and foils are transported

placed at the end of the system. In comparison to a system working with positive pressure, a higher degree of efficiency is achieved. Furthermore, the suction effect ensures that the paper dust is completely removed by the filter system and cannot return to the work area. The cleaned transport air is then fed back into the production area.

All the disposal and compaction components are connected via secure line with the service department at Hunkeler Systeme AG. The service technicians can access the controls at any time, and are thus able to give valuable to the operating personnel at Al Nisr Publishing when necessary.

### On the market since 35 years

Al Nisr Publishing is a publishing company with its headquarters in Dubai. The company was founded in 1984 and, a year later, took over the newspaper title Gulf News from the previous founder and owner. Al Nisr Publishing issues another ten publications.

## A really big system for a really big corrugated cardboard producer

The Naberezhnye Chelninsky Cardboard and Paper Factory, one of the largest corrugated cardboard producers in Tatarstan, disposes of cardboard waste with a suction and compaction system from Hunkeler Systeme AG. With 100,000 cubic meters of air volume, it is one of the largest systems ever planned and installed.

The Naberezhnye Chelninsky Cardboard and Paper Factory (KBK) was founded in June 1981 and counts as one of the largest and most modernly equipped corrugated cardboard and pulp producers in the Republic of Tatarstan. Seven per cent of all Russian corrugated cardboard is manufactured by KBK. About 60 per cent of the annual net profit flows back into the modernisation of its production technology.

The highly automated production operation is equipped with two corrugated cardboard systems, 15 punch machines and a cardboard shredder. The removal and disposal of production waste is now taken care of by a large system supplied by Hunkeler Systeme AG.

The filtered transport air is absolutely clean. In the summer, it is exhausted outside the building, in the winter it is used to warm the production area.

### Automatic punches grouped together

The 15 automatic punches have been divided into groups of three or four machines. Conveyor belts collect the punch waste and deliver it via chutes to the suction technology. A shredder on the chute shreds the waste which is in the airstream and sent on to the baling presses.

### Complete Backup Service

At KBK the system is divided into two main groups with one times six and one times five connections, as well as a fan with a closed impeller per group. Hunkeler Systeme AG designed the system for full back-up capacity. In case the fan for one of the groups fails for any reason, suction on that production line is still ensured by the fans from the other groups. KBK placed the back-up function



To ensure that the great quantity of cardboard waste is reliably disposed of in 24/7 operation, Hunkeler Systeme AG installed two high performance baling presses from the series VK 4212. The cardboard waste is transported to the presses via paper cutters.

### Experience and the concept count

Never before has Hunkeler Systeme AG planned or executed a suction and compaction system on such a massive scale. Extensive experience in highly complex project engineering and the clean, energy-saving concept with negative pressure technology were the reasons that the contract was awarded to the Swiss company. The size of the system speaks for itself: with an air transport volume of 100,000 cubic meters per hour, the production waste is transported via a paper cutter to two high performance baling presses and pressed to compact bales. The dust is removed from the air in filters and then pressed into briquettes.

high up on the priority list in the system requirements. Especially on the two corrugated cardboard production systems, 24-hour operation, seven days a week, had to be guaranteed.

### ESS ensures cost effective operation

An energy saving system (ESS) ensures that the fans perform only when they are needed by the production system. Each machine connected to the suction system can be individually controlled. The savings in electrical energy which KBK achieves, compared to operation without ESS, can be as much as 50 per cent.

## Secure document destruction with a reliable partner

Groupe Mutuel places great importance on high security when it comes to the destruction of documentation. This is not only true in connection with the physical shredding process; a high level of security on the part of the technology supplier is also required.



The shredding plant destroys confidential documentation in an Inline process – to security level P3 according to DIN 66399.



Simple, clean, secure: the shredded documents are compacted into briquettes with an edge length of 80×80×70 mm.

For the national insurance company Groupe Mutuel one of the main principles is that: „Anything on paper is highly confidential and must be treated as such“. This principle includes anything from the envelope to the medical invoice. The company wants to ensure that every document containing confidential information that should be destroyed is definitely destroyed.

### Inline processing from document to briquette

The work of secure document destruction system is now in place in the new building located in Sion. It comprises of a compactly constructed shredding and briquetting system from Hunkeler Systeme AG. A four-shaft shredder tears the documents to particles of an acceptable maximum size of 320 mm<sup>2</sup>. This size corresponds to security level P3, as defined in Norm DIN 66399. A constant particle size is ensured by the size-defined openings in the sieve. Thanks to a slow-running shredding process, there is very little paper dust. The air is filtered of residual dust in the compact suction system HKU 1250 and returned to the room.

A press, integrated into the system, compacts the particles to briquettes with an edge length of 80×80×70 mm. Ulrich Imboden, who is responsible for the technology used by the Groupe Mutuel, considers briquetting a key component in simple, clean and secure document destruction.

### Confidence confirmed

The space housing the shredding plant is notable for its low height. Ulrich Imboden is convinced that installing the system in the very limited available space was an outstanding achievement in engineering by Hunkeler Systeme AG. He considers the confidence he placed in the company engineers from Wikon confirmed and is already planning the next investment: in Martigny, the headquarters of the Groupe Mutuel, a new baling press will soon be replaced with a briquetting system analogous to the one in Sion, „in the interest of a simple, economic and clean process“, as Ulrich Imboden says.

### „Reliability is the priority“

Ulrich Imboden (photo) is the Technical Manager for the Groupe Mutuel and in this function is responsible for the insurance company's five service centers in Switzerland. He considers reliability from his suppliers a priority.

What does this mean for Ulrich Imboden? „Reliability means that I always have the same contact person, who knows and understands the technology involved. Reliability means that I know to whom I need to address my questions and that I will receive coherent and conclusive answers. We want to work with suppliers who can reach us quickly when we need their support. Hunkeler Systeme AG can offer us this service as well as technical skills, despite the distance between Canton Valais and Wikon.“



**Shredder HKZ 700**

**A sure thing for E-commerce**

Hunkeler Systeme AG has developed the new Shredder HKZ 700 for shredding cardboard waste in Box-on-demand lines.

Box-on-demand lines, as used in E-Commerce, box up to 1,000 packages per hour. Due to individual box sizes, a great deal of waste cardboard is left over. In many places, this waste is placed unshredded in trucks and pushed manually into a press hopper. This is not hundred per cent economic and impairs production efficiency.

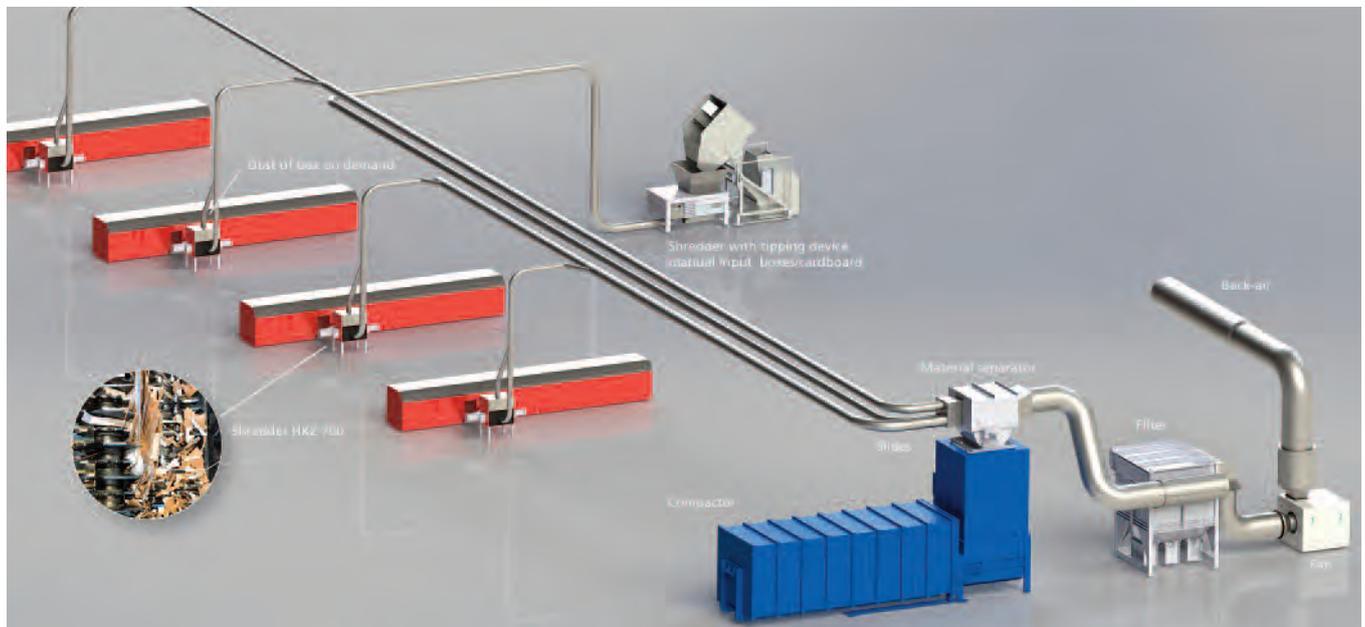
**Clean and logistically well-organized**

Hunkeler Systeme AG has developed the Shredder HKZ 700 to address this problem. It is efficient and, thanks to its robust construction, very durable. The shredder reduces cardboard strips, sheets and boxes to easy-to-transport particles. A suction system

takes the particles to a baling press or a press hopper, where it is compacted. The production area remains clean and logistically well-organized. Negative pressure suction technology transports the dust-laden air in a closed system; it is then cleaned in filters and returned, absolutely clean, to the environment.

**Volume and weight are both invoiced**

Online sales are growing rapidly. Box-on-demand lines are being used more and more in E-commerce. And for a very good reason; Online dealers require that packaging is adapted to the size of the merchandise being shipped, because otherwise, the distribution centers are burdened with a surcharge. Delivery services no longer calculate the tariff based on weight alone, but also include the volume in their calculations.



Bringing efficiency to Box-on-demand production: the Shredder HKZ 700 from Hunkeler Systeme AG.

**Open House at G. Gobat SA, Develier**

Hunkeler Systeme AG and G. Gobat SA invite you.

**Open House  
on the 9th of Mai 2019  
at 1:30 pm**

Come and visit the most modern Swiss waste management facility in Develier near Delemont. After a welcome drink at 13.30, we will be given a guided tour of the facility by Didier and Gaël Gobat. We are looking forward to welcoming you in Develier. Please send your registration to [k.kitaj@hunkeler.ch](mailto:k.kitaj@hunkeler.ch)

**Impressum**

Published by:  
Hunkeler Systeme AG  
Industriestrasse 2  
4806 Wikon/Switzerland  
Phone +41 62 745 77 77  
[info@hunkeler-systems.com](mailto:info@hunkeler-systems.com)  
[hunkeler-systems.com](http://hunkeler-systems.com)



Visit our website:  
[hunkeler-systems.com](http://hunkeler-systems.com)

© Hunkeler Systeme AG  
Use of the content is permitted  
only if the source is acknowledged.

