

BANKNOTE TECHNOLOGY REPORT

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Created by

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HUNKELER SYSTEME

**BANKNOTE DESTRUCTION
WITH A SYSTEM -
SAFE AND RELIABLE**






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Destruction and recycling with a system is our world

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HUNKELER SYSTEME

Throughout the production process where automated waste evacuation has to take place with shredding, compacting, sorting and de-dusting of waste or even security print documents, that's where Hunkeler Systems plays an important role all over the world.



Process security is of the utmost importance in the destruction of confidential documents. Each individual sequence is meticulously recorded, from access authorisation, via the fully-automatic infeed up to and including the output of shredded documents compatible with data protection requirements.

TAILOR-MADE ENGINEERING

Our Software department is an integral part of the Engineering department. The close collaboration with Sales and Project Management teams ensures custom-designed and tailored solutions, which we integrate into the customer's own operating schedules and processes, as well as into the space available.

MORE ENVIRONMENTAL PROTECTION AT LESS COST

The GreenLineConcept economises on energy and brings about a noticeable drop in running costs. The intelligent control system optimises the performance of the system and reduces maintenance.

WORKFLOW | MONITORING SOFTWARE

When high security documents are destroyed correctly, reliability and process security is of enormous importance. Careful logging records the process: From access authorisation via PIN-Code, through the fully-automatic feed with robot technology on to the ejection of the shredded material in the form of compact briquettes.

THE FIRST CHOICE IN ALL ASPECTS - NEW HUNKELER COMPACT SYSTEM

A notable bank equips their six branches with new sorting and shredding plants. Hunkeler Systeme AG presented a convincing concept and won the tender. The bank has ordered six plants for the destruction of bank notes from Hunkeler Systeme AG. The bank will install them next spring in six branches in various parts of the island. Thus the bank changes from a centralised to a decentralised destruction of bank notes. Not only will the bank increase security but it will also save on costs, as transport from the six branches to the headquarters will no longer be necessary. The system had to be suitable for installation in small rooms. An automatic process with single-step shredding and a particle size of according to security level P4 was required.

INTERESTING QUALITY-PRICE RELATIONSHIP

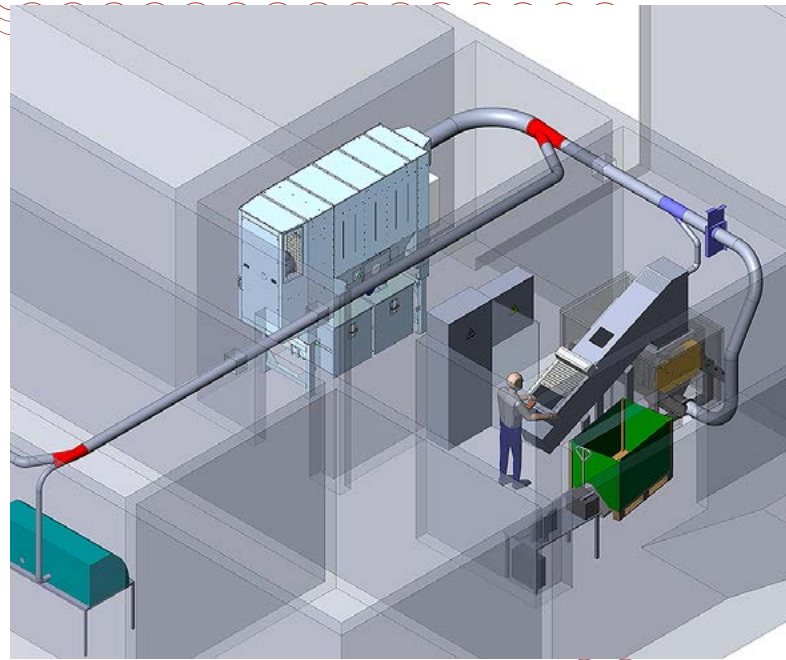
The concept, as developed by Hunkeler Systeme AG, met all the specifications. For the bank, not only the high level of automation and the compact construction, but also the very interesting quality-price relationship were decisive factors for choosing Hunkeler Systeme AG.





SECURE DESTRUCTION ON LITTLE SPACE

The Hunkeler Compact Buffer HCB 600 stores up to 600 kilos of banknotes an hour. It requires four times less space than other systems with a comparable performance. Hunkeler Systeme AG presents the new HCB 600 (Hunkeler Compact Buffer) for the secure destruction of bank notes. The feed and shredding processes take place fully automatically with a shredder and a downstream granulator. Manual intervention is not necessary. The system is fully protected against unauthorised access. The HCB 600 is scalable, possible operating performances range from 200 up to 800 kilos of material an hour. The bank notes packets are stacked vertically and transferred via a Paternoster to a conveyor belt at the back, which transports the packet to the shredder. Thanks to the Paternoster principle, the HCB 600 is a compact construction. It requires four times less space than a conveyor system with comparable performance.



HUNKELER SYSTEME AG DEVELOPS AND SETS UP ROLL SPLITTING SYSTEM

A well-know customer has been working with a new roll splitting system since the spring. It is part of an integrated shredding process which ensures an irreversible destruction of substrates for bank notes and identity documents.

SWISS CUSTOMER IN PAPER MANUFACTURING

By order of state authorities and central banks, the customer produces substrate for identity documents and for the printing of bank notes. The products undergo a strict internal quality control. Substrate rolls which are faulty must not leave the production operation and must be destroyed in an absolutely secure internal process. For this purpose, new roll splitting system was installed in spring. The system shreds the substrate rolls in an automatically controlled process in 20 to 60 centimeter stacks; this value can be set as required.

SECURE SHREDDING IN A CLOSED SYSTEM

The Swiss customer engaged Hunkeler Systeme AG for the engineering and the installation. The suggested concept has fulfilled in an optimal way the need for a secure and at the same time efficient shredding process, as the customer says. With this statement the customer is referring here to the closed system, which includes not only the splitting process, but also a shredder with two shredding grades and a granulator. The end products are particles, which correspond to security level P5. They are turned into compact briquettes in a press and are re-used as admixtures in the manufacture of various other products.

INTERNAL RECYCLING OF VALUABLE MATERIALS

Previously, the splitting process and the following shredding were not two connected operations. To split the rolls, our customer worked with a hydraulically driven gib head, which had to be manually operated. Shredding was laborious and slow; transporting the material to the shredder plant meant long distances had to be covered. The company took advantage of the investment in the new splitting plant and reconsidered the layout in favour of shorter transport routes and a more efficient shredding process. In contrast with the earlier gib head, the new splitting plant is set up at the cutting area, exactly where the rolls are cut. Additionally, the transport belt exits from the splitting plant in two directions. The forwards and backwards mode means that that scrap material resulting from when a new order run on one of the paper



machines is not sent to the shredder but transported in the other direction to the waste container. This high-quality material is re-used in stock preparation. And because the material is pre-shredded, it disintegrates in the pulper relatively quickly.

THE SYSTEM ENSURES ECONOMIC PRODUCTION OPERATIONS

The Swiss customer has been working with the new plant for almost ten months. What is the verdict? The better speed in particular was mentioned. In that the rolls are split into small pieces, the shredder performance is increased by 20 per cent, compared to the previous system, the customer says. The rapid and logistically correctly arranged system for the splitting and shredding of the substrate rolls is an

obvious benefit for the economic efficiency over the entire production operation.

Large roll splitter with combination of tipping device for all other materials like sheets.

BANKNOTE INVALIDATION

Decentralised invalidation of banknotes with the Hunkeler Banknote Puncher. A variety of punch patterns are available for this semi-automatic compact device.

HUNKELER SYSTEME AG

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