

CASE STORY

Security Printing

Banco de Cabo Verde

Praia (Cape Verde)

Cape Verde central bank trusts in technology from Switzerland



For the safe disposal of banknotes, Banco de Cabo Verde has invested in an HKU 4510. Many qualities of this compact extractor have convinced: the dust-free process thanks to the negative pressure principle, the expansion options, the very low noise level, and the economical production operation.

The Banco de Cabo Verde (BCV), as the central bank of the island state of Cape Verde, issues the banknotes for the Cape Verde escudos. Unfit banknotes must be regularly removed from circulation and separated from the good banknotes in a sorting process. To do this, BCV uses a 7000 sorter from the British company CPS with an integrated shredder. The shredded material is removed from the process via an HKU 4510 compact suction unit from Hunkeler Systeme AG.

Convincing in all points

The Banco de Cabo Verde was looking for a system that was designed to be as space-saving as possible and still offered options for later connection to other sorting machines as well as for the integration of an offline shredder.

In the HKU4510, the central bank found exactly the system it was looking for. The sorting and extraction technology is installed in a comparatively small room in an office-like environment. In the HKU 4510, the fan, the self-cleaning jet filters and two collection containers, each with a capacity of 0.4 cubic meters, are integrated into one system. Despite the very compact design, the capacity is sufficient to connect up to three sorting machines to the compact extraction system.

Dust-free production environment

The HKU 4510 operates according to the proven vacuum principle. Due to the suction effect achieved, the paper dust remains trapped in the ducts and cannot escape into the working environment. The transport air is cleaned in a jet filter and returned dust-free to the production room. Thanks to an automatic switchover between the two collection containers, non-stop operation is ensured on the HKU 4510. The compact extraction system was also favored by BCV in that its very low noise level made it a perfect fit for the premises.



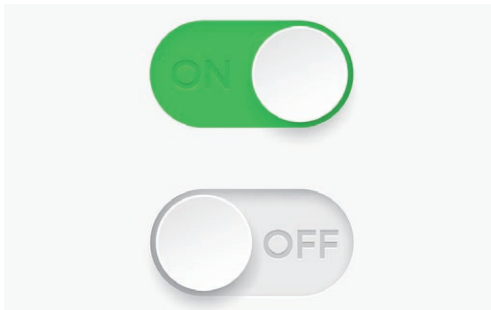
The HKU 4510 is prepared for connection (see above in the photo) to an offline shredder.

Cost-effective operation thanks to ESS

Another argument in favor of the HKU 4510 was its economical energy consumption. The ESS energy-saving system regulates the energy consumption according to demand; at any given time, the fan only provides as much power as the air volume required in the extraction system (see back page). The dynamic control of the power does not only bring Banco de Cabo Verde savings in electrical energy. Because the fan adjusts its speed to the current air demand, the mechanical load on the system is also reduced. Over the entire service life of the HKU 4510, this results in comparatively cost-effective production operation.

How energy can be efficiently used: Hunkeler Systeme AG analyses and optimises

High performance standards, but modest energy requirements: these qualities characterise the disposal systems produced by Hunkeler Systeme AG. Disposal and control technology complement each other in the comprehensive engineering approach.



Automatic switch-off assistant ASA

Pneumatic suction systems are usually in a state of constantly high operation. In the morning, they are switched on with a lead time and in the evening need a follow-up time before being switched off. This requires an unnecessary amount of energy. Therefore, Hunkeler Systeme AG has developed the Automatic switch-off assistant ASA. It activates a suction system as soon as production starts and automatically switches the system off during breaks and at the end of the day.



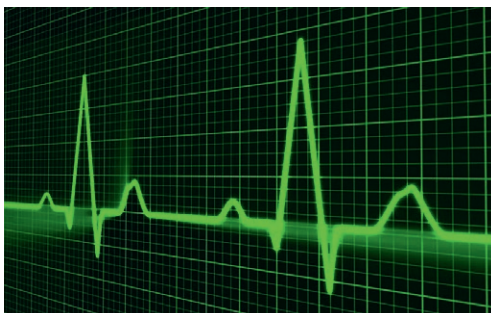
Energy Saving System ESS

The Energy Saving System regulates the performance of pneumatic suction systems according to the momentary requirements. At 80 percent air volume a fan requires only 60 percent of the electrical energy. The mechanical load on the ducts/pipes is comparably low, and so maintenance costs are avoided. The basis of the ESS is a differential pressure control system where a frequency converter dynamically controls the fan performance.



Heat Recycling

Suction systems emit a lot of thermal energy. This energy can be used to either heat or cool the production area, according to the season. Suction systems from Hunkeler Systeme AG function on the negative pressure principle. Thanks to the suction effect, dust-laden air cannot escape from the pipes during transport. Jet filters extract the dust before the air is returned, absolutely clean, to the production area.



Energy Management System

The Hunkeler Systeme AG Energy Management System shows, where and how much energy is being used in the production system. From this objective presentation, an exact usage profile can be deduced. Energy flow can be precisely managed, resources efficiently used and operating costs accordingly lowered.