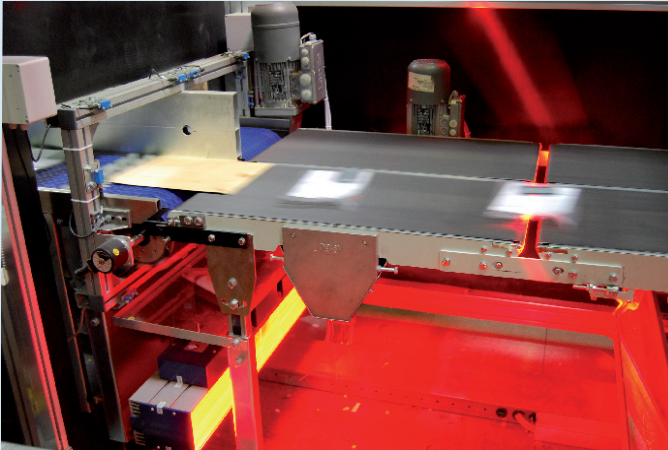


## Sorting of interoffice mail at the Spanish bank “la Caixa”

### VIPAC reads barcodes and archives images for follow-up



VIPAC reads the barcodes on the bottom side. For this purpose, one camera is mounted below the inbound conveyer belt.

#### Task

The Spanish bank “la Caixa” operates a distribution center for internal mail at its main office in Barcelona. The outbound mail is sorted there and is then sent to the branches. The sorting is performed on the basis of unique identification of a barcode or occasionally of characters (OCR). The objective of the bank is to sort the internal mail and forward it in a fully automated and reliable way. The relevant information must be archived for the purpose of internal follow-up.

#### Benefits

The camera-based identification system VIPAC offers a custom-tailored solution to this problem: Unlike the traditional barcode scanners, the Vitronic system provides the following:

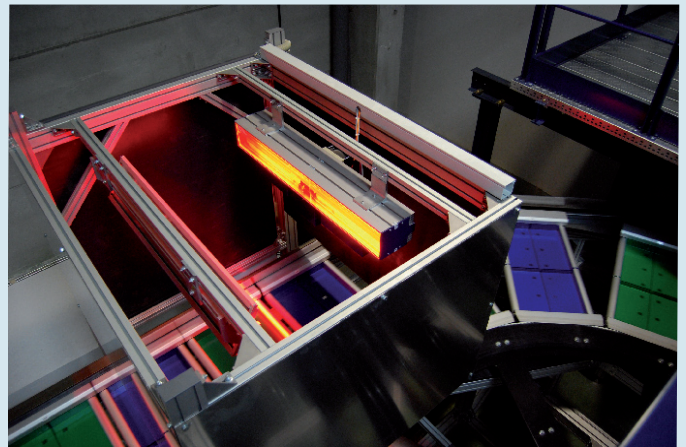
- highest barcode read rates for reliable sorting
- high-resolution images for subsequent reading of characters (OCR)
- images for archiving and internal follow-up of the shipments.

#### Technical Data

Camera	each system has 1 high-resolution auto-focus line-scan VICAM <sup>ssi</sup> camera for top reading. 1 high-resolution fixed-focus line-scan VICAM <sup>ssi</sup> camera for bottom reading
Speed/Throughput	Up to 1.0m/s 197 fpm 14,400 packages/hour
Hardware/Interface	Ethernet LAN to the central computer I/O interface for equipment control

#### Implementation

The sorting capacity in the distribution center of the Spanish bank is designed for 14,400 pieces per hour. The VIPAC system is used at two points: The first VIPAC system identifies the barcodes on the bottom side of the shipments. For this, a VICAM<sup>ssi</sup> camera is mounted under the inbound conveyor belt. It takes pictures of the bottom side of the shipments with a resolution of more than 210dpi at a conveyor speed of 1m/s (197 fpm). The images are then saved, once with high and once with medium quality. VIPAC forwards the high-quality pictures – depending on their barcode content – to the character reading software (OCR) of the bank. The medium-quality pictures are archived for three days for the purpose of internal follow-up of the shipments. Two other VIPAC systems are mounted, each one above a sorter from the company



Each VIPAC system reads, with only one top camera above the sorter, barcodes from both trays – even in the case where two shipments lie close to each other.

DistriSort. The sorter has two independent trays (Dual Tray Sorter) running parallel to each other; two different sorted materials can be accepted. Each VIPAC system reads, with with a single top camera, barcodes from both trays – even in the case where two shipments lie close to each other. Thereby the reading can be assigned unambiguously to the right or the left tray. A barcode scanner is unable to perform such a task. The two VIPAC systems generate additional images with medium compression for the purpose of archiving and follow-up.