



Swiss Post franks using Zebra® printers and flexible self-adhesive labels.

Each year Swiss Post carries in excess of 2.9 billion addressed consignments and 104 million packages, making it the nation's largest logistics enterprise. In order to be able to label the consignments that vary in weight and size and deliver them to their destinations quickly, Swiss Post has introduced a flexible franking solution from Zebra Technologies. Installed in its 2,500 post offices for printing out self-adhesive bar-coded labels, in the required format, at the press of a button.

Speed and flexibility

Customers need to be served quickly and simply at the post office counter, which is why Swiss Post already introduced the SCHAPO postal counter automation system some years ago. One of the central elements of the IT solution is a thermal printer that prints linerless, self-adhesive labels with barcodes and franking details, before cutting them to size using an integrated cutter. This linerless technology is extremely flexible because it allows labels of varying sizes to be printed without changing the paper. Using linerless paper avoids additional waste, in addition to which the post office employees are able to save time that they would otherwise need to peel off the adhesive labels. The advantages of this technology are plain to see, but place the highest of demands on the printer and consumables. "The old printers no longer met our requirements. They had exceeded their useful life: high failure rates, breakdowns, excessive maintenance and repair costs forced us to phase out the device," reports Wendelin Kessler, Head of the Swiss Post's LogistikPoint in Lucerne.

The challenge

The consumables used had a rubber-based adhesive coating that may have scored top points in terms of its high initial adhesiveness, but was so sticky that residues accumulated on the blades during cutting. The printer's rotating cutting mechanism became gummed up and had to be repaired at regular intervals. Since a service technician either had to drive out to the affected branch or the device had to be sent in for repairs, the printers, which were very expensive to buy in the first place, caused high maintenance costs. Within the scope of a Europe-wide WTO tender, Swiss Post went in search of a solution to the problem and evaluated the various different barcode printer manufacturers and their products.

Comprehensive functional specifications

Swiss Post defined a comprehensive statement of requirements for the new thermal printers and the label material, in order to find a preferably low-maintenance and reliable solution for the future. The key objectives included guaranteed simple operation, robustness and good equipment availability, high label printing quality, the use of state-of-the-art technology and good value for money. In addition, the system was not only supposed to support one-dimensional barcodes, but also 2D ECC200 data matrix codes, that were earmarked for use in the future in the postage segment.

Furthermore, the bidder also had to satisfy numerous criteria, including systems engineering demands on the printers, for instance with regard to the printing process, resolution and print quality, speed, print span and paper width, interfaces, fonts, graphics capability or variable label sizes. The bidders were also required to provide details of their services with regards to infrastructure and operating environment aspects, the test and introductory phase, training and also in terms of operation, servicing and maintenance.



Solution Technology

5100 x Zebra® LP 3842™ desktop printers

Zebra® label supplies



Following receipt of the documentation, the Swiss Federal Institute of Material Research and Testing (Eidgenössische Materialprüfungsanstalt - EMPA) evaluated the data for five series-produced test devices from manufacturers who claimed to meet the formal criteria. After analysing all test data, the most convincing solution proved to be the joint package offered by Zebra Technologies, the reseller PC-Ware Information Technologies AG and the Swiss distribution partner Primelco System Device AG. Their concept is based on the Zebra desktop printer LP 3842, whose compact and patented double-walled design made of shockproof ABS plastic made it ideally suited for continuous operation at the counter.

Everything from a single source

Zebra Technologies has made considerable progress in the field of linerless technology and has weeded out the flaws with which other linerless systems tend to struggle.

To this end, Zebra Technologies focussed on the consumables: The Zebra® paper uses a specially developed acrylic adhesive which is considerably better to handle than the rubber-based alternatives and does not gum up the printers. The LP 3842 comes with a built-in guillotine knife that is technically less complex than the rotating knife mechanisms, which makes the printer considerably cheaper to buy. Most importantly however, the blade cuts downwards through the paper, meaning that the cutting surface does not come into direct contact with the adhesive side. Following successful field tests with 30 Zebra printers, Swiss Post therefore ordered 4,800 LP 3842 printers for its branches and a further 300 devices for installation in Pesa package scales. "The cutter is quick, quiet and very reliable," says Wendelin Kessler. "And we only use original paper from Zebra. Thanks to this coordinated package comprising a printer and acrylic labels, we are now using a simpler, virtually maintenance-free postage solution at the counter for customer transactions, which results in lower costs and improved service."

Reliability and quality

Swiss Post rolled out the new solution single-handedly. The SCHAPO post offices were all gradually re-equipped and additional branches were fitted out with the new Zebra printers and labels. The integration of the devices into the existing postal network was easy to manage using the standard USB, Centronics parallel port EPP/ECP and RS232(DB9) interfaces. The layout of the different labels – identification codes for the parcel post and postage labels for letter post and registered letters for domestic and international deliveries – is pre-stored in the printers and can be edited by the printers themselves. The printers are controlled via Windows printer drivers and print barcodes and the encoded details such as the postal identification code, the six-figure postal code of the mailing post office, the order number (device number/consignment number), the weight and postage of the consignment as well as date, time and the Swiss Post logo. Thanks to the integrated cutter, each label is automatically cut to the right format from the reel of paper, fed out and affixed to the consignment by the employee at the counter. The printer is operated intuitively, which makes employee training unnecessary. Since their installation, the printers have required virtually no maintenance at all; where necessary, printing heads can be cleaned without any difficulty using a cleaning pen that is included in delivery or, alternatively, using a lint-free cloth and alcohol. Wendelin Kessler is delighted with the results: "The re-equipping with Zebra was definitely worthwhile. Despite three times the number of printers now in use, breakdowns have been reduced to a minimum. The continuous operation over the past two years has convinced us to continue using Zebra and this linerless system, and I would recommend the printer to other companies without hesitation."



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**Wendelin Kessler,
Head of Production,
Maintenance & Support,
Swiss Post**

