## Storage and Picking

KLINGEL: one of the largest multichannel distance sellers in Germany



The KLiNGEL Group, located in Pforzheim, is one of the largest mail order retailers in Germany with numerous subsidiaries in Europe. 15 specialized mail order retailers are located under one roof, their products consisting of women's and men's fashion, shoes, jewelry and watches, home textiles, accessories, home and garden products, electronics, furniture and gifts that are mainly targeted at people aged 50 and over. In addition to their catalog business, the KLiNGEL Group offers online shopping, a segment that is growing steadily. The company founded in 1920 currently has approximately 2,000 employees.

## **The Project**

The KLiNGEL Group invested in the construction of a modern, fully automated logistics center at its head-quarters in Pforzheim. Germany's second largest, traditional mail order retailer reacts to growing requirements in the age of omni and multichannel retail as well as e-commerce with spatial expansions and future proof IT and database solutions.

The result is a fully automated warehousing and order picking system hosted by the existing logistics buildings and the new "Bagstore". Included in the project: The conversion of the SAP logistics software solution further developed by Körber to the SAP HANA database.





## **The Solution**

In the nine story bagstore, KLiNGEL stores up to 710,000 flat packed goods individually in bags. The bagstore stores about 30,000 articles in and out before they are consolidated via a sorter system and transported into the predetermined packing area. KLiNGEL achieves a record in the temporal processing of customer orders: An ordered product needs only 45 minutes from the warehouse to the packing location; within 90 minutes, the package is already ready for shipping.

An important requirement for such an efficient management and picking system is RFID (radio frequency identification).

The technology in the bagstore enables fast identification, automatic sorting and supply. Each bag is tagged and can thus be quickly identified and shipped. KLiNGEL also improved on same day delivery, allowing for same day delivery within an area of 250 km.

Efficient logistics processes especially require powerful IT. In this regard, KLiNGEL relies on a solution from the software specialist Körber that has proven effective for many years. Since 2005, the so called NKLS, which Körber provided based on SAP, has been ensuring smooth communication with the host application and subordinate control systems.

Since June 2017, specific management of the 710,000 individual products in the bagstore and the planning of the physical consolidation of a customer order's positions at one of the 45 packing locations of the bag or carton packing module or circular conveyor. The system also takes over the inclusion of returned goods and the management of online print orders.

It was beneficial that KLiNGEL could rely on a software solution that had proven effective in operative, daily business during the go live of the new logistics center, which enabled a safe transition to the new situation. Since NKLS was smoothly modified and expanded in the past, the high flexibility of the system also positively benefited the go live of the new bagstore.

However, that was not all. The database migration to SAP HANA was a breath of fresh air that significantly improved performance based on in memory technology. Thus, planning orders that run in the background of NKLS, improved by a factor of 1.2 to 4.4. The processing times of telegrams that are exchanged by the subordinate system are 7 to 13 times faster than prior to the migration to SAP HANA.

The migration required no additional NKLS system modifications to be made by the logistics software specialist Körber, which was responsible for the database migration. Moreover, the significant improvement in performance is also noticeable in daily operation. Thus, KLiNGEL achieves an increase in speed by a factor of 52 for queries that are sent to the database in day-to-day business.

The go live of the new bagstore, including the fully automated warehouse and picking system, marks the beginning of a new era for the KLiNGEL Group. Future proofness is achieved through progressive modernization and long term partnerships. Tradition and modernity result in a successful symbiosis in KLiNGEL's bagstore.

"In 2006, when the in house processing of the hanging garment was revolutionized, we largely reproduced the KLiNGEL specific logistics in the Körber system. [...] With the bagstore and the 710,000 bags stored in it, we have rolled out a, 'best of' these processes to a whole new dimension."

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