CASE STUDY | SUSTAINABILITY



ERIKS SUPPLIES QUIET SKF E2 BEARINGS THAT RUN SMOOTHLY AND RESULT IN COST SAVINGS FOR CUSTOMERS

Distribution centre benefits from energy-efficient bearings





CUSTOMER PROFILE

In 1841, Clemens and August (C&A) Brenninkmeijer started up their first linen retail outlet in Sneek. This has since grown into over 400 ready-to-wear clothing shops in Europe, 100 of which are located in the Netherlands. C&A's distribution centre is located in Lisse in the Netherlands. This building with state-of-the-art equipment comprises approximately 52,000 m² with more than 300 employees.

CHALLENGE

On peak days, C&A's distribution centre processes some 200,000 pieces of clothing, 75 per cent of which consists of hanging clothing. The reception and throughput of this clothing is a complex process involving approximately 36 kilometres of rails that guide 12,000 trolleys. Each trolley has two plastic rollers fitted with ball bearings and two pivot points. The trolleys are driven by roller chains or slide along the hanging rails through means of their own weight.

Taken all together, the trolleys comprise 24,000 bearings. These are key to the course of the entire logistics process, because as soon as a trolley no longer runs smoothly, or becomes stuck, all of the trolleys behind it come to a standstill. The result is that a worker has to give the trolley a push or has to guide it by hand. This takes time and effort, and also is a source of irritation for employees.

SOLUTION

ERIKS started off by analysing the trolleys. They turned out to be equipped with bearings that had a lot of play. They were installed at the time because of their low price and because they were thought to cause little resistance. However, actual practice has shown that the ball bearings had imprecise running accuracy and insufficient concentric running accuracy. This increased friction losses resulting in many breakdowns and therefore time loss. ERIKS proposed to conduct a trial using energy-efficient E2 ball bearings developed by SKF. This trial was a success.

The E2 bearings allow the trolleys to run smoothly, quietly and precisely, and to fully run their course. Furthermore, the bearings have a longer service life and also turned out to be cheaper.

OTHER BENEFITS

- Increased efficiency and reliability of the logistics process
- Energy savings

