

Background



- The Sevens department store in the Königsallee, the foremost shopping mall in Düsseldorf, covers approx. 15,000 m² and was opened in October 2000.
- This 7-floor luxury building holds 70 shops and has 4 underground levels of parking with 300 parking spaces.

Specific challenges



- Regarding the escalators, the challenge was how to deliver and install the escalators through the roof of the store during the construction process.
- The challenge in constructing the store was how to carry out the massive construction task discreetly while allowing the inhabitants of Düsseldorf to continue shopping on the Königsallee, while every day 100 m³ of concrete and steel had to be delivered and 400 m³ of earth transported away. This problem was solved by a pedestrian tunnel which bypassed the construction site.
- In addition, a special building plan significantly reduced construction time. The so-called "covered design" meant that the building could be constructed downwards and upwards. This was made possible by a "concrete cover" between the first and second basement levels, created in October 1999. This platform allowed the four parking levels below and the five floors above to be built at the same time.

KONE solution

- 12 KONE escalators were ordered to connect the 7 floors of the store.
- The escalators were chosen for their maximum availability at a low cost, and because they required up to 10% less space than conventional escalators.
- The 1.1 meter high glass balustrades comply with German regulations for buildings of 12 meters and over, and together with the slim escalator frame they give the escalator an elegant shape.



Installation specifics

- The delivery and installation of the escalators turned out to be logistical and mechanical masterpiece.
- On Sunday 2nd April 2000, the Königsallee was blocked off completely from 6 am to 6 pm when trucks delivered the 12 escalators. The largest crane in North Rhine-Westphalia, weighing 400 tons, lifted the escalators one by one over the neighboring Berliner Bank and lowered them through the still-open roof into the inner courtyard for installation.
- This required extraordinary coordination, accurate to the millimeter, between the crane operator in the street and the site manager inside the building. Once the escalator was lowered in through the roof, the crane operator had to rely on instructions from the “director” in the atrium who communicated with the crane operator via radio.

Other aspect

- The architects – Rhode, Kellermann and Wawrowsky – were impressed with the attention KONE paid to the design of the store and the relevant safety standards.

Result

- Every day the KONE escalators transport thousands of visiting shoppers to and from the different shopping areas in Sevens and also serve as a successful visual addition to the interior architecture, which has already been nominated for an international design award.

