



PHOENIX INTERNATIONAL MEDIA CENTER – BEIJING, CHINA

# Steel nest of the Phoenix

As awe-inspiring as the mythical bird after which it is named, Beijing's Phoenix Media Center lifts China into an unprecedented era in steel innovation.





Designed by the Beijing Institute of Architectural Design, the Phoenix International Media Center lies in Chaoyang Park, part of East Beijing's central business district hosting the city's leading media organizations. Phoenix is an open, multifunctional building providing 65,000 square meters of space for television production, media communication and commercial exhibitions.

One of the most important public buildings to rise in Beijing since the 2008 Olympic Games, the Phoenix Media Center has an unusual shape that posed challenges in the installation of KONE elevators and escalators. KONE was chosen for the project based on its reputation in working with steel constructions, having successfully supplied equipment for key projects in China including the world-famed Beijing National Stadium, also known as the Bird's Nest.

#### **Living Mobius strip**

The irregular hilly shape of the Phoenix Center is based on the mathematical model of a Mobius strip. The complex steel structure comprises thousands of components of varying radii and lengths, which presented huge difficulties in both the design and installation of the equipment. Accurate calculations were required during the design phase in order for the equipment to fit into the complicated steel structure and layout. The bending and curving shapes necessitated resourceful shaft design, and the dense, net-like steel structure was a major obstacle to the smooth delivery of equipment to the site.

KONE overcame these challenges through close cooperation with the customer, starting from the early design phase through to the prompt delivery of the project with professional installation.

#### **Soaring dragons**

Among the most eye-catching elements in the building are two KONE escalators with a vertical height of 20.3 meters, which are the longest commercial escalators delivered by KONE in China. Phoenix is also the first construction in China to connect two separate buildings with escalators, linking the 9<sup>th</sup> floor south building and the 5<sup>th</sup> floor north building.

Hoisting and fitting the huge escalators through the steel jungle was difficult and complex. KONE used a crane to solve this problem. Custom-made trusses were installed to support the two customized escalators, which look like a pair of dragons soaring into the sky.

#### **Noise control pilot**

To keep the overall shape of the building smoothly intact, KONE provided customized machine-room-less elevators with a car height of 2.8 meters. They travel at 2.5 meters per second, a speed that only KONE can provide in China. To satisfy the customer's special noise control requirements, KONE added noise insulation materials to the cars and piloted special motor noise control technology.

## SUMMARY

### Challenge

- To provide customized elevators and escalators for a uniquely shaped steel building
- To connect two buildings with commercial escalators of a vertical height greater than ever before accomplished in China
- To meet the media company's special noise control requirements

### Solution

- Accurately designed and customized solutions assure a perfect fit in the building's complex steel structure
- Flexible solutions enabled the installation of two escalators with an extremely high vertical lift
- Creative noise reduction solutions efficiently minimize noise during operation

## FAST FACTS

### Phoenix International Media Center

- Completed: 2014
- Height: 55 m
- Total floor area: 64,973 sqm
- Land area: 18,821 sqm
- Building owner: Phoenix Satellite Television Holdings Ltd. (East) Beijing
- Developer: Phoenix Satellite Television Holdings Ltd. (East) Beijing
- Architect: Un-forbidden office, Beijing Institute of Architectural Design

### KONE Solutions

- 15 KONE MonoSpace® elevators
- 7 KONE TravelMaster™ 110 escalators
- KONE E-Link™ monitoring system
- KONE Care™ Maintenance Service