



## SHANGHAI MUNICIPAL STADIUM

Inauguration: **1997**  
 Owner: **Shanghai East Asia Sports & Culture Center**  
 Project: **Architectural Design and Research Institute of Shanghai**  
 Construction: **Weidlinger Associates, Birdie**  
 Capacity: **80,000 seats**

Olympics  
 (China)

THE SHANGHAI MUNICIPAL STADIUM IS NOT ONLY ONE OF THE LARGEST STADIUMS IN THE WORLD, BUT IT'S ALSO ONE OF THE STADIUMS WITH THE MOST INTERESTING DESIGN, THANKS TO THE ROOF STRUCTURE WITH FABRIC CANOPY, A UNIQUE WORK OF ITS KIND. FOR THE OCCASION OF THE OLYMPIC GAMES 2008, MONDO HAS BEEN AWARDED WITH THE RENOVATION OF THE ATHLETIC TRACK.

### NOT JUST SOCCER

Among the cities that housed sporting events related to the Beijing Olympic Games, the city of Shanghai played an important role, as it housed some of the soccer matches of the Olympic tournaments. It was an opportunity for millions of people all over the world, as they were able to admire the Stadium of Shanghai, flagship of the sporting complex situated in the south-western part of the city, a plant used not only for the football matches, but also for meetings of athletics and other sport events or entertainments. Built in 1997, on the occasion of the 8th National Games of People's Republic of China, being able to house up to 80.000 spectators, it is considered one of the greatest stadiums of the world, second in China only to the Beijing National Stadium. The Olympic Games 2008 represented the right occasion to realize a series of jobs of renovation, including the reconstruction of the athletics track, for which they asked the intervention of Mondo, that used a Sportflex Super X Performance flooring.

### A ROOF OUT OF THE ORDINARY

In addition to its size, the Shanghai Municipal Stadium impresses with its design, particularly the roof. Looking at the building one can not but be struck by the roof above the structure, unique both in appearance configuration. Made of fabric, can be described as described as a translucent lightweight saddle-shaped canopy ring formed by a steel cantilevered spatial structure consisting of 32 cantilever trusses. The roof is formed by two ellipses (the outer one measures 288.4 m x 274.4 m and the inner one is 150 m x 213 m). The roof starts from the outside edge and reaches toward a center oval opening. It also rises and dips as it makes its circuit around the field matching the undulating elevation of the back of the stands. The complicated geometry and unique shape of the roof was one of the most difficult design challenges of this project.

### AESTHETICS AND FUNCTIONALITY

Weidlinger Associates and Birdair were invited to construct the structure of the roof providing the most advanced new technology, material and construction. The detail that fascinates most is the use of fabric: the first roof was completely covered in fabric to be built in China and, increasingly, for the first time in the Asian country, the fabric has been used as an architectural element. "Originally, the building project included the use of panels



of plastic - recalls Weidlinger Associates. We convinced the client that the plastic is not as strong as the fabric and tends to wear out considerably with the passage of time. "The Municipal Stadium in Shanghai, the first to be built after the Cultural Revolution, home to the cantilevered steel truss roof of the world's largest and is an example of how form and function can live together in an architectural work. "The stadium has a roof convex. The long extended coverage allows excellent views from every seat on both sides, along the length of the field. The design is asymmetrical because it houses a hotel that allows you to increase the economic feasibility of the project. The drama and beauty of its structural system are closely linked to its functionality," emphasizes Weidlinger Associates. Thanks to its originality, the project was awarded as "Best Sports Architecture of Shanghai" in 1998 and was selected for the "Top Ten Classical Architecture Shanghai Gold Prize" at the 50th anniversary of the Republic of China (1999).



