

# Incheon Grand Bridge (South Korea)



## Project description

At 12.3 km long with a main cable stayed span of 800 m, since 2008 the Incheon Bridge is one of the five longest of its type in the world. Its 33.4 m wide steel/concrete composite deck will carry six lanes of traffic 74 m above the main shipping route in and out of Incheon port and link the new Incheon International Airport on Yongjing Island to the international business district of New Songdo City and the metropolitan districts of South Korea's capital, Seoul.

The cable stayed section of the crossing is 1'480 m long, made up of five spans measuring 80 m, 260 m, 800 m, 260 m and 80 m respectively: height of the inverted Y main towers is 230.5 m. A 1.8 km approach span and 8.7 km viaduct complete the crossing, both constructed with precast prestressed concrete box girder decks. Foundations

are drilled piles 3m in diameter. Total cost is more than \$1.4 bn, which is funded through a Private Partnership in Investment (PPI), the first in South Korea to involve an outside strategic investor.

## Delivered products

The Incheon bridge is equipped with 76 mageba TENSA®MODULAR expansion joints. Largest expansion joint type LR24 (movement: 1'920 mm) equipped with ROBO®GRIP anti-skid surface, ROBO®SLIDE high grade sliding material and a ROBO®CONTROL remote monitoring system. Dimensions of each modular joint type LR24 (LxWxH): 16 m x 4.9 m x 0.8 m. The large dimensions and the weight of nearly 50 tons per joint, required special measures for the transport from Europe to Korea.

## Highlights & Facts

### mageba Products:

Type: 76 TENSA®MODULAR (up to type LR24)  
ROBO®GRIP  
ROBO®SLIDE  
ROBO®CONTROL  
Permanent

Features: max. movement  
1'920 mm

Installation: 2009

### Bridge:

City: Incheon  
Country: South Korea  
Type: Cable-stayed bridge  
Length: 12.3 km

Incheon bridge: Link between Incheon Int. Airport and metropolitan districts Seoul



A mageba modular expansion joint in service



TENSA®MODULAR expansion joint type LR24 ready for installation

