

# Øresund Bridge (Sweden)



## Project description

A 16 km long connection between Sweden and Denmark was constructed over a 4 year period. It runs over the Øresund from Copenhagen to Malmö and consists of an extended peninsula, an under water tunnel, an artificial island and a 7845m long bridge connection.

The concrete steel composite bridge connects the Swedish mainland with the artificial island, from where the lanes lead into the underwater tunnel. Together with the Storebaelt bridge over the large belt, a connection could be created in 1998 between Scandinavia and Continental Europe

## Delivered products

mageba Pot Bearings allow the necessary movements between the bridge piers and the bridge structure. These bearing type was chosen for its durability and for

its ability to withstand aggressive environmental conditions. mageba satisfied very stringent requirements during the design, manufacturing and installation phases which are now standing up to the test during the operational phase: Vertical forces up to 96'000 kN, total horizontal load in the transverse direction (for ship impact) of 40'000 kN which was distributed by means of a special arrangement between both pot bearings of the pier. Other requirements included a 30 year corrosion resistance in an aggressive ocean environment likewise an elaborate mathematical proof of the static properties of the designed bearings (using finite element analysis). The bearings have dimensions up to 2500x3000x800mm and the bearing weights reach as high as 20'000kg per bearing.

## Highlights & facts

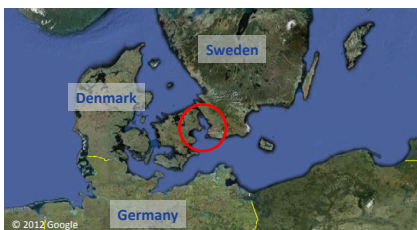
### mageba-products:

Type: RESTON®POT Pot bearing  
Features: Vmax. 96'000 kN

### Bridge:

City: Copenhagen / Malmö  
Country: Sveden / Denmark  
Built: 1996-2000  
Type: Cable-stayed bridge  
Length: 7'845 m

The bridge connects Denmark with Sweden



The impressive structure crosses the Øresund



Assembly of a mageba pot bearing (Vmax = 96'000kN)

