

Facts about the Fehmarnbelt Tunnel

(All of the following dimensions are based on the design proposal of November 2010 and may be adjusted in the final project.)

Total length of immersed tunnel: 17.6 kilometres from tunnel mouth to tunnel mouth

Length of tunnel elements: approx. 217 metres

Number of tunnel elements: 89, of these, 79 standard elements and 10 special elements

Emergency exits: every 108 metres

Max. element weight: approx. 73,500 tonnes

Tunnel cross-section — height: approx. 9 metres

Tunnel cross-section — width: approx. 42 metres

Excavation volume: approx. 15 million m³ from tunnel trench and approx. 4 million m³ from production site

The tunnel is designed for the following travel speeds:

- Passenger rail traffic: 200 km/h
- Freight rail traffic: 140 km/h
- Road traffic: 110 km/h

The tunnel consists of a four lane motorway with emergency lanes and a twin track railway in separate tubes.

Long immersed tunnels in the world

The Fehmarnbelt Tunnel 17.6 kilometres

Transbay Tube (San Francisco, California, USA) 5.7 kilometres

Drogden Tunnel (Øresund, Denmark/Sweden) 3.5 kilometres

Busan-Geoje Tunnel (Busan, South Korea) 3.2 kilometres

Hampton Roads Tunnel (Hampton, Virginia, USA) 2.3 kilometres

Cross Harbour (Hong Kong) 1.9 kilometres

Tama River Tunnel (Tokyo, Japan) 1.5 kilometres

Marmaray Tunnel (Bosporus, Turkey) 1.4 kilometres

Femern A/S is tasked with designing and planning of a fixed link between Denmark and Germany across the Fehmarnbelt. Femern A/S is a subsidiary of the Danish, state-owned Sund & Bælt Holding A/S, which has experience from the construction of the fixed links across the Great Belt and the Øresund.