

Cirkelbroen (Denmark)



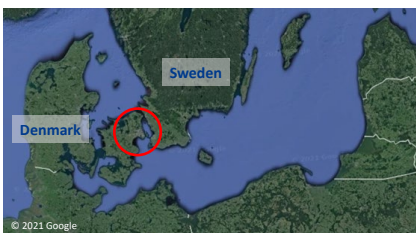
Project description

Cirkelbroen is an architecturally significant pedestrian bridge in the heart of Copenhagen city centre, opened in summer 2015. The bridge spans approximately 40 meters over the Christianshavn Canal to connect the Applebys Plads and Christiansbro District of the city, also assisting in creating a continuous walkway along the Copenhagen Harbour.

Cirkelbroen is a steel pedestrian bridge formed of five circular platforms that span the canal. The bridge is able to rotate approximately 90 degrees around the central platform, in order to grant boats access to the Christianshavn Canal. The rotating length of the bridge is approximately 25 m long.

Beneath the central platform, the existing bearing had become damaged due to the opening and closing of the bridge – mageba was contacted to develop a solution for replacement.

The Cirkelbroen is a pedestrian bridge in the heart of Copenhagen City Centre



mageba scope

mageba was commissioned to develop a bespoke solution for replacement of the bearing beneath the central platform, at the pivot point.

Damage to the existing bearing appeared to be due to steel-on-steel contact at the interface of rotation.

This new RESTON®SPHERICAL type KF1.8 bearing would require a vertical sliding surface, around which the bridge could rotate.

mageba was able to develop a bespoke solution, incorporating a vertical ROBO®SLIDE ring, and re-produce to the outer dimensions of the original bearing one-to-one in order that exchange could be made using the existing hole pattern.

New mageba RESTON®SPHERICAL bearing after installation, alongside the bridge hydraulics



Highlights & facts

mageba products:

Type:	RESTON®SPHERICAL type KF 1.8 bearing
Feature:	ROBO®SLIDE sliding material
Installation:	2021

Structure:

Country:	Copenhagen
City:	Denmark
Type:	Steel pedestrian bridge
Length:	40 m
Completion:	2015
Owner:	City of Copenhagen
Contractor:	SH Group A/S
Architect:	Olafur Eliasson

Rotation caused during bridge opening is facilitated by the RESTON®SPHERICAL bearing

