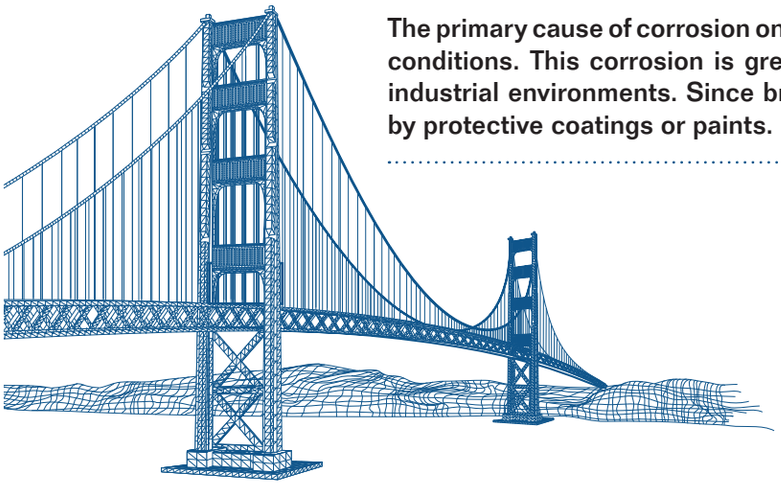
ZINGA®

BR
BRIDGES

REFERENCES

ZINGA® ON BRIDGES



The primary cause of corrosion on steel bridges is the exposure of the steel to atmospheric conditions. This corrosion is greatly accelerated by marine (salt spray) exposures and industrial environments. Since bridges cannot be dismantled, they should be protected by protective coatings or paints.

Changes in environmental protection regulations have brought about a transformation of the approach to corrosion protection for steel bridges. Until the mid to late 1970s, virtually all steel bridges were protected from corrosion by multiple thin coats of lead- and chromate-containing alkyd paints applied directly over mill scale on the formed steel. Maintenance painting for prevention of corrosion was rare and was primarily practised on larger bridge structures.

Indirect costs to the public are estimated to be at least 10 times higher than the direct corrosion costs: construction of new bridges, failure, or maintenance of corroded bridges can increase wear and tear on automobiles, gasoline usage, and delays in transportation due to bridge closures and, above all, structurally deficient bridges cause a risk to public safety.

ZINGA offers an environmentally friendly, sustainable and effective solution for the corrosion protection of steel bridges, especially in severe marine corrosive environments.

KALVØYA BRIDGE

In 1985 ZINGA was applied by brush on the steel structures of the Kalvøya Bridge in Norway. Paint gloves were used for the carrying cables.
In February 2010, 25 years after the application, the layer thickness of ZINGA on the Kalvøya Bridge was measured. The loss in layer thickness after 25 years was approx. 30 µm.
In 2015 the bridge was entirely refurbished with ZINGA. This could be done at a significantly reduced cost, since the bridge did not have to be reblasted to the bare steel: after a minimal surface preparation, the new ZINGA reliquidised the old layer to form one new layer.

REFERENCES

- **AUSTRALIA** - Burdekin River Bridge, Molisson Street Bridge, Bremer River Bridge
- **BELGIUM** - Melle Bridge, Keizer Bridge, Rumst Bridge
- **CHINA** - Tsing Ma Bridge, Stonecutters Bridge, Huangzhou Bay Bridge, Yan'an Freeway
- **EGYPT** - El Salaam Gas Pipeline Bridge
- **ESTONIA** - Siesniki Soft Traffic Bridge, Otiveski Bridge
- **MYANMAR** - TOTAL Traffic Bridge
- **TOGO & BENIN** - Office Togolaise des Phosphates Railway Bridge, Zou and Ouémé Railway Bridge
- **TURKEY** - Izmit Bay Suspension Bridge
- **USA** - Mississippi Biloxi Traffic Bridge

11/2020 EN

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