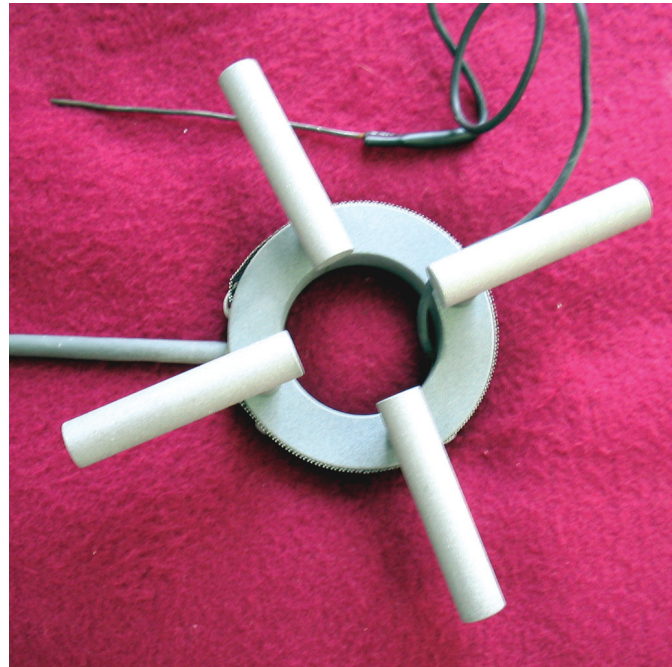


CorroWatch Multiprobe

The CorroWatch is a multiprobe, which in the standard version consists of four black steel anodes and one noble metal cathode. The anodes are placed in varying, but defined distances from the exposed concrete surface. The height of the anodes is flexible and can be adjusted according to the concrete cover thickness.

The CorroWatch acts as an early warning system to predict the initial stages of corrosion in concrete structures. It is cast into the cover concrete, normally in newly cast concrete structures. The probe can measure most of the relevant corrosion parameters.

To predict when the reinforcement will start corroding, the current between the single anodes and the cathode is measured, either with a volt-meter or a specially designed data logger. When corrosion starts, the current will increase significantly.



Areas of use

- Areas difficult to access, e.g. tunnels.
- Bridges in marine environments.
- Splash zones, e.g. pillars in sea water.
- De-icing areas, e.g. parking floors/decks.
- Structures heavily affected by acid rain, e.g. chimneys.

Example

The adjacent picture shows a CorroWatch multiprobe which has been installed for monitoring of time to corrosion initiation in the immersed elements of a tunnel.

The CorroWatch were installed in such a way that the concrete cover on the highest electrode (anode) is approximately 25 mm.

Example

In Figure 1 an example from a laboratory test is shown indicating when the corrosion initiates at each of the 4 anodes.

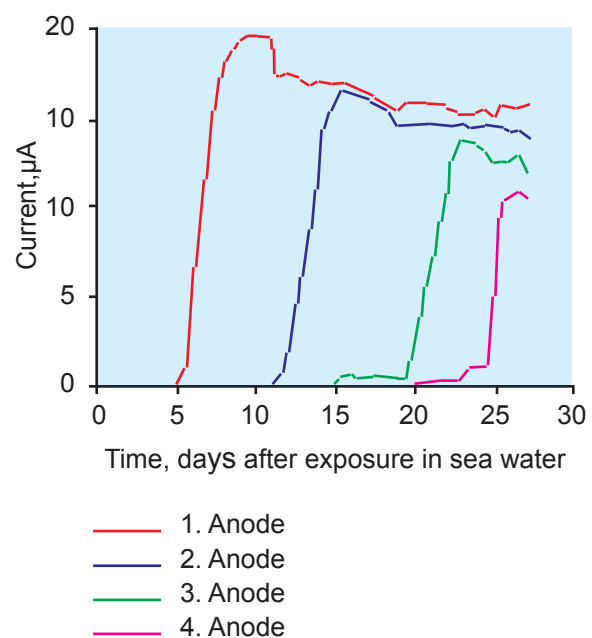


Figure 1. Increase in current in the 4 anodes