jayBird
The wireless early warning system for reinforced concrete

jayBird
Detects weak spots before they can develop into a danger or hazard.

Concrete and steel – this combination stands for simple processing, diversity of shape, reasonable cost and high load acceptance within all areas of construction design.

However, this combination has some inherent problems: The initial corrosion- proof reinforcement steel, under the influence of chemical substances and ageing, loses its protective passive layer. Unseen from the outside, corrosion gradually sets in which eventually can endanger the stability of the entire structure. When cracking, chipping, fissures in the concrete become noticeable, the damage has already taken place and cost of repair will be considerable. The usual cause of corrosion is chemical attack through ingress of salts and acidic water into the structure – or carbonatization.

The early warning system corroDec offers a simple and economic solution: It reacts before the steel itself is damaged. *jayBird* sensors are placed at strategic points before or after concreting.When corrosion destroys the wire around the sensor cartridge a signal is sent to the monitoring station. This way, repairs can be carried out before the reinforcement steel itself is damaged. Alternatively an estimate of the remaining lifespan of the supporting structure can be carried out.

Uncomplicated, economic, variable application.

jayBird sensors can be installed without much effortbefore concreting – e.g. in new buildings, or other structures, or during renovation. They can also be retrofitted by core drilling after concreting has been completed. Typical places where these are used are: Bridges, Car Parks, Shaft structures,Tunnels, Water tanks and Water works structures.

The Advantages at a Glance

RECOGNIZES DANGER OF CORROSION

- before damage occurs
- before expiry of defects period
- without the need for sampling
- on the basis of clear test results

LOW INVESTMENT AND FOLLOW-UP COST

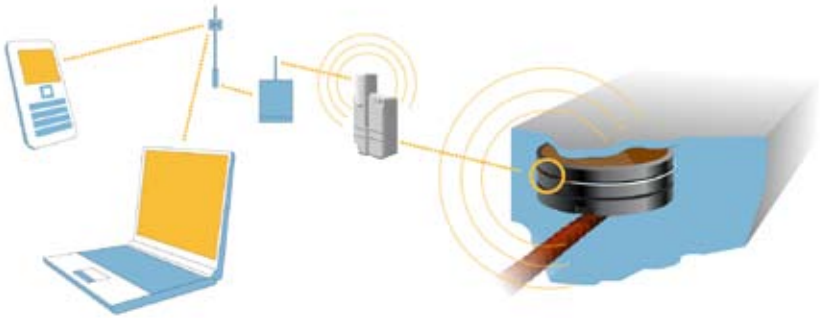
- due to simple method of installation before or after pouring of concrete
- due to economic wireless sensors with extended service life

CONVENIENT SYSTEM OPTIONS

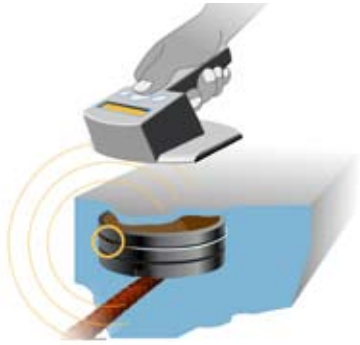
- can be integrated into automatic monitoring system
- suitable for connection to networks of other security or measuring systems

Prior to concreting

Subsequent installation by core drilling



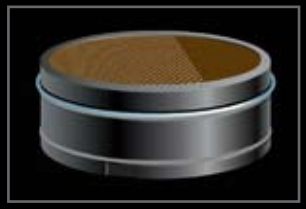
ACTIVE EARLY WARNING SYSTEM



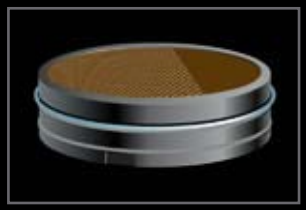
PASSIVE EARLY WARNING SYSTEM

ARCON
Product family and system options

All sensors come with a fixing wire. The normal diameter of sensor models is 80mm.
(Special sizes can be supplied if required).



Sensor – high design (25 mm)



Sensor – low design (15 mm)

Active Sensors
Reading of "corrosion status" by an active sensor is carried out by wireless transmission. (Range of reading of sensor is 500m.) Data transmission takes place automatically and is recorded by the monitoring software.
Active sensors can be integrated in a network of meter readings, temperature measuring or security measuring systems. They have a service life of up to 20 years.

Passive Sensors
With passive sensors, reading takes place right at the concrete structure, by trained personnel. Passive sensors have a reading range of up to 600mm.This way it is possible to ascertain the progress of corrosion at that point.The advantage of passive sensors is their simple handling and a life span of a minimum of 50 years.

Please enquire for the scope of our services;
we will be pleased to assist you

ARCON
Safety and Competence in Building

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