

# Technical System Information Sheet

Cathodic Prevention for New Construction

LoCem® Modular Anode Unit (MAU) and a Resilience Kit of Parts

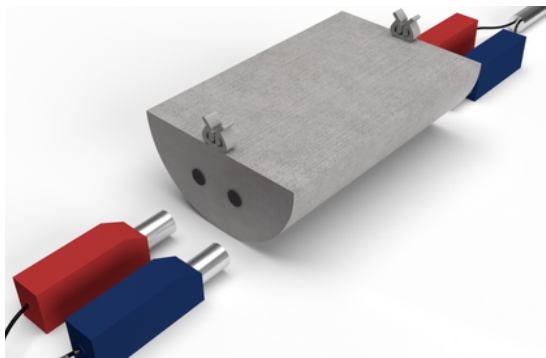


## Providing Sustainability with Futureproofing for Structures from Day One

Corrosion occurs naturally and is **the cause of 70% of infrastructure damage**. It is also preventable and controllable. C-Probe has developed a standardized “kit of parts” to allow corrosion protection components to be easily incorporated as a structure is built that has the objective of providing whole life resilience In Use.



The LoCem® Modular Anode Unit (MAU) is manufactured **using industrial waste streams repurposed as a low carbon geopolymers mortar** and formed in moulds as a “plug & play” component. Complete with integrated connections for push-fit directly to steel reinforcement during construction, whether in the precast factory or in-situ.



These are designed for construction in zonal arrays and inter-connected with modular anode and cathode dc circuitry. Once installed with monitoring devices added and tested then the concrete can be placed encapsulating the installation before delivery.

The wiring is then opened from box-out positions on site and terminated in the AchillesICP zonal enclosures with network routed between these and the Network Access Unit (NAU) **for remote data acquisition and control of protection current**.

### Compliance:

Systems are designed in accordance with **BS EN ISO 15257: 2019** and **BS EN ISO12696:2016** for cathodic protection of atmospherically exposed reinforced concrete structures.

## Our Structural Resilience Kit of Parts

- LoCem® Modular Anode Units
- Plug & Play dc circuitry
- Embeddable corrosion rate probes

- AchillesICP power, control & monitoring zonal enclosure
- Plug & Play open networks
- Network Access Unit for remote access to data and control



Whole structure or targeted protection from corrosion



Performance tracked and reported for whole life of the structure



Low carbon products aligned with ESG needs



Cost control on future maintenance



Asset value retention



Warranty assurances



Single life time application

buildoffsite



# Technical System Information Sheet

Cathodic Prevention for New Construction

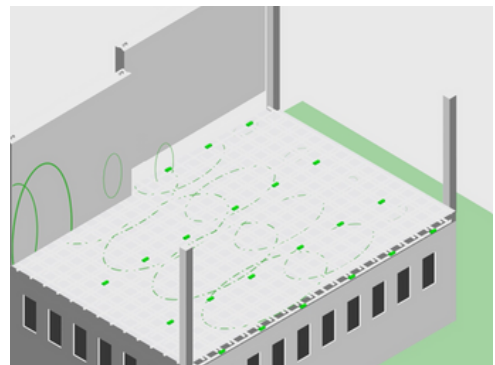
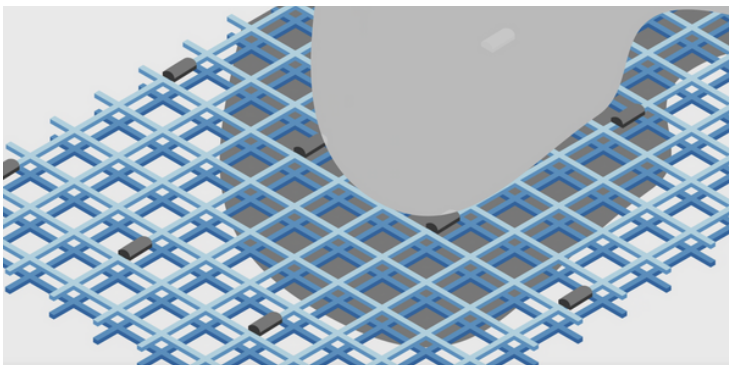
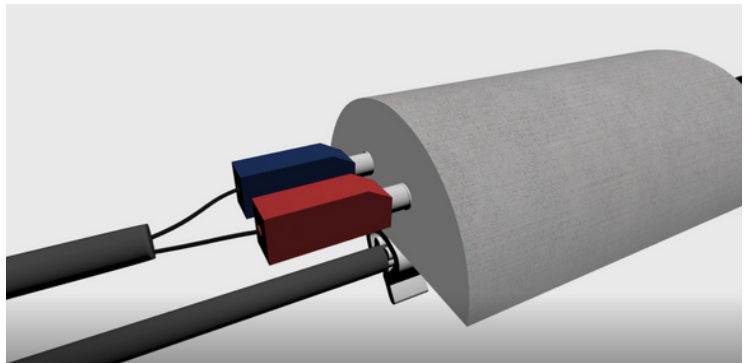
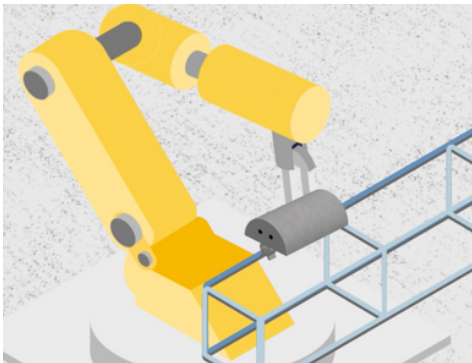
LoCem® Modular Anode Unit (MAU) and a Resilience Kit of Parts



## How to install the LoCem MAU®

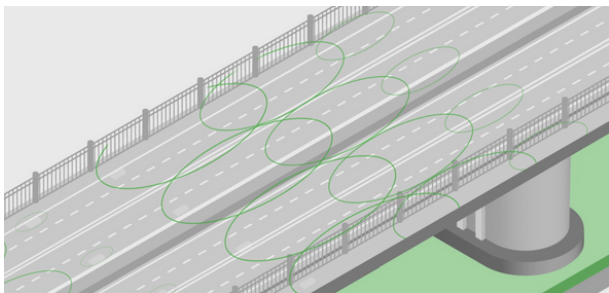
The MAU can be used in all new construction where reinforcement steel needs protection - this includes bridges, buildings, car parks and any kind of civil infrastructure. It can be push-fitted to a range of steel sizes (12-40mm) during steel construction by human or by robot in an array normally around 400-500mm.

'Plug & Play' wiring between MAUs simplifies the electrical installation, final routing of the network to terminate at the zonal enclosure can be made at the precast factory or after delivery to site, minimising time to completion of the installation.



## Remote Monitoring and Online Control

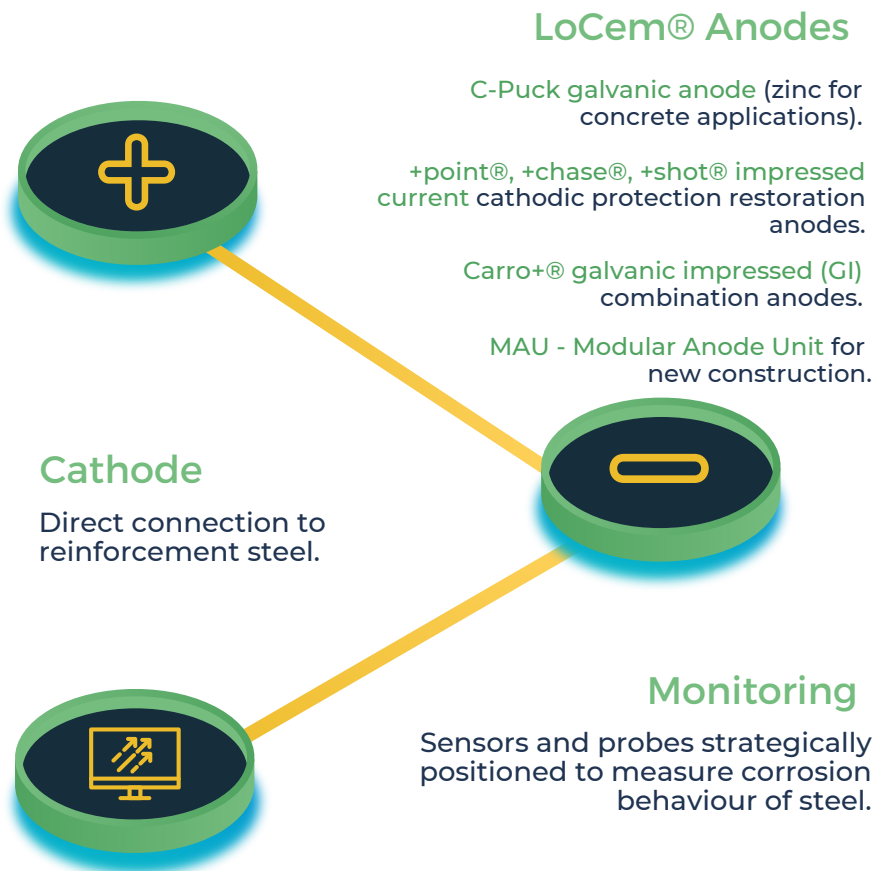
Long-term asset protection is afforded using these digital assurance tools with structural performance tracked, controlled and reported online for sustainability with futureproofing.



**AiMS**  
C-Probe.com  
The informed choice



## Embedded Components of our Cathodic Protection Systems



---

## Surface-mounted components

### Achilles Suite of Structural Healthcare Systems

Networked electronics used to terminate anode and cathode circuits as well as monitoring devices contained within weather-proof enclosures. Can be integrated in open networks with other SHM tools.



---

## Offsite



**Achilles interactive Management Server (AiMS)**  
to provide resilience information and service life tracking for the whole life performance of the protected asset.