




Zebrafish

The Automated Corrosion Testing Platform

A close-up photograph of a zebrafish scale, showing its intricate, overlapping structure with a mix of purple, blue, and yellowish tones. The scale is positioned in the upper right corner of the slide, partially overlapping the text.

If you believe that corrosion testing is an area crying out for improvement then zebrafish is the system you've been waiting for...

www.cambridgereactordesign.com/zebrafish

What does it do?

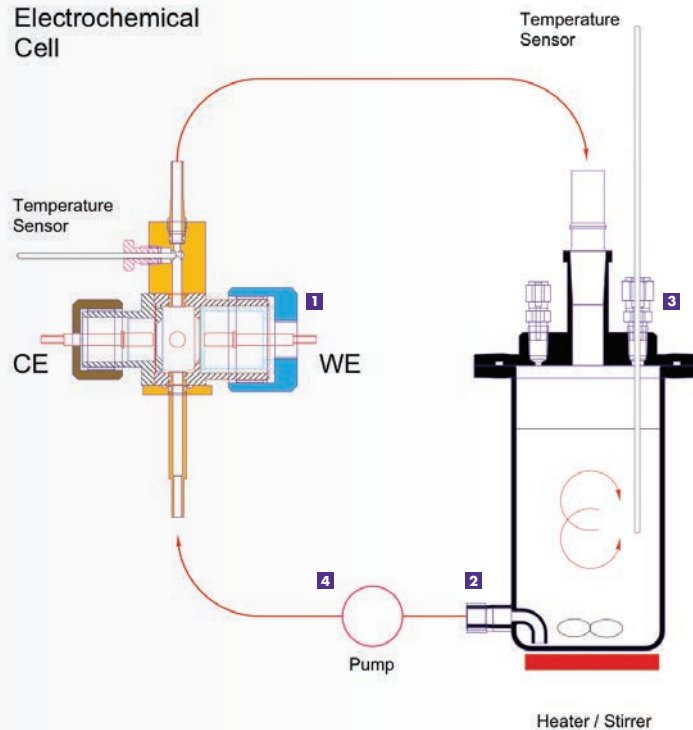
The platform can be individually set to give the optimum conditions for examining the impact of the electrochemistry on a test sample. At the click of a button it will perform (pre-programmed) standard tests. With instrumentation from Intertek (our preferred partner), users can perform experiments such as polarisation resistance, cyclic voltammetry and constant potential experiments incorporating user-defined conditions of electrolyte flow rate and temperature.

The electrolyte can be sampled for metal ion content and tests can be carried out using a multiplicity of additives to evaluate accelerated degradation.

In addition to yielding high quality corrosion data a great deal faster than conventional test methods, the high throughput approach enables the evaluation of a more complete range of parameter variables than was previously possible.



Electrochemical Cell





Exploded View. Conventional Three-Electrode Cell - Glass Construction

Overview

- Flow cells for electrochemistry
- Performs multiple tests simultaneously
- Precise temperature control
- Modular construction
- Small volume, resource efficient design
- Easy to use and set up hardware – plates/tokens can be changed in seconds
- User friendly software for easy data collection and manipulation
- Integrates seamlessly with Intertek instrumentation for standard tests e.g. polarization resistance and cyclic voltammetry

Cambridge Reactor Design has developed a generic multi-cell platform (Automated Corrosion Test System) suited to a broad range of industries where high volume testing is necessary as part of fundamental screening, quality assurance and development program.

The Automated Corrosion Test System is high-throughput equipment consisting of independently controlled test cells. A system can comprise of many cells daisy chained together allowing simultaneous testing of samples.

User-friendly software is integral to the system allowing easy collection of system data.



Conventional Three-Electrode Cell - Peek Construction



An affordable, high throughput, lab scale system with multiple cell configurations. The zebrafish is an invaluable tool for every lab with a need for corrosion testing.



Three In One Electrochemical Cell - Peek Construction

Standard System Specifications

Operating pressure	Ambient
Operating Temperature	Ambient to 80 C
Accuracy	± 1 C
Electricity Supply	115V or 230V
Reservoir Capacity (ml)	500
Gear Pump	316 Stainless Steel and PEEK construction
Flow Cell Examples	Conventional Three Electrode Cell in glass Conventional Three Electrode Cell in PEEK
Cell Volume	20 ml
Seals and O Rings	FKM material
Temperature Probes	PT100
Working Electrode Area	2 cm ²
Counter Electrode Area	2 cm ²
Reference Electrode	Ag/AgCl, 1/4" diameter

Software Features

Independent temperature and flow control of multiple stations	Included
Graphical representation of all system and process variables	Included
Data logging with Excel compatible output files for reporting	Included
Selectable temperature profiles	Included



For further information on our corrosion products, please call us on **+44 (0) 1954 252522** or email **sales@crduk.com**

Alternatively you can visit [www. CambridgeReactorDesign.com](http://www.CambridgeReactorDesign.com)

For our full range of products please visit our www.CambridgeReactorDesign.com



Cambridge Reactor Design Ltd

Unit D2 Brookfield Business Centre Cottenham, CB24 8PS England, UK

T +44 (0)1954 252522 **F** +44 (0)1954 252566

E sales@crduk.com **W** www.CambridgeReactorDesign.com