

How does DeCalon (DCI) work?



The DCI process is electrolysis, basic electro chemistry.

The process removes scale and alters the chemical balance of cooling water which dissolves built up scale as a means of restoring equilibrium (Le Chatelier's Principle).

What differentiates the DCI Intelligent controller is its ability to remove scale sufficiently to maintain good heat transfer but not excessively to cause corrosion.

Reactions at the cathode surface

- + Cathodic reduction
- + Precipitation

The cathodic reduction reaction results in an excess of OH^- in the boundary layer near the cathode surface. In the absence of buffer the pH rises. The high pH conditions (>10) only prevail near the cathode while the bulk of the water remains at the feed pH.

The alkaline environment induces the precipitation of the Calcium and Magnesium hardness in the form of CaCO_3 and Mg(OH)_2 according to...



The intelligent controller maintains the cell potential required to drive these non-spontaneous reduction reactions.

Reactions at the anode surface

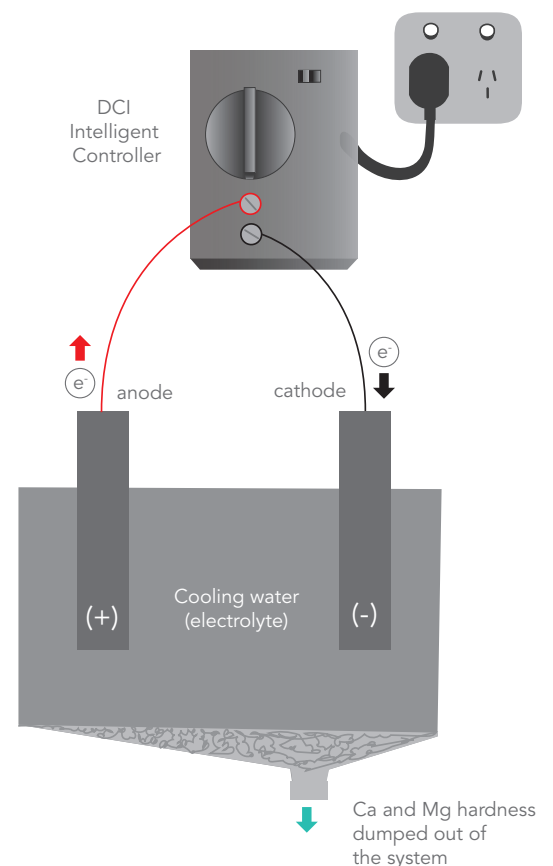
- + Anodic oxidation
- + Acidic catalyzation

A series of oxidation reactions occur at the anode resulting in the formation of gases and biocides, including...



Electrolytic Cell

Electrical energy is used to drive nonspontaneous redox reaction



Restorative solutions through science.

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