

Rotating Cylinder Electrode Atmospheric and Pressurised

PMAC Systems apparatus for corrosion monitoring and control: Rotation Cylinder Electrode (RCE):

Overview

Fluid flowing past a corroding surface often affects the way in which a metal corrodes in an environment. PMAC systems' RCE apparatus is designed to measure the corrosion rate under a variety of shear conditions, utilising a variety of standard or non-standard rotating electrodes.

Atmospheric RCE

The PMAC RCE Rotator with separate controller provides a highly reliable, low cost capability for routine RCE testing. The motor controller unit comes with a digital display of speed and an accumulator (rev. total). This rotator offers a simple and economical solution for routine hydrodynamic voltammerty.



The rotator features a solid-state controlled geared-system capable of rotating an electrode at rates between 250 and 10,000 RPM from a low voltage dc motor, encapsulated in sealed unit.

The electrode rotation rate is set using a convenient digital push button located on the front panel of the control box. The internal counter and display facility assures the user of test performance, even with viscose fluids



Complete with cylinder electrode assembly, sample and disc amber

Pressurised RCE

New: PMAC developed in association with D & M Controls an RCE Rotor which provides for elevated pressure RCE up to 200 psi at temperatures to 55-60 degC. Each drive rotor comes with its own controller.



The electrode is rotated at speeds from 500 to 10,000 revs per minute by a low voltage dc motor, which is conservatively rated for the duty. The system is set for 20mm long by 20mm diameter or 8.75mm long by 12mm diameter. The ends of the electrodes are profiled to produce a fluid seal using 'O' rings and an electrical contact. The electrode is mounted on a ptfе insulated shaft, which can operate up to 125mm under the surface of the liquid. Longer lengths are possible, but might have to have a lower speed limit.

The electrodes are manufactured from commercial grade mild steel and the 'O' rings are commercial grades of either viton or nitrile. Different sizes and material can be provided subject to quotation.

Our policy of providing specialist bespoke designs coupled with our willingness to collaborate with the customer allows us to respond very quickly to any design changes or modifications of the autoclave.

For high temperature high pressure RCE testing capabilities, please refer to our Autoclave brochure or:

For further information please as us: sales@pmacsystems.com