

Atmospheric Pressure Rotating Cage System

Metals Samples provides solutions to study the performance of corrosion inhibitors in the laboratory. The Rotating Cage is helpful in selecting corrosion inhibitors for use in oil and gas production pipelines and facilities, transmission pipelines, as well as in oil refineries. It simulates aggressive field flow conditions that cause localized pitting corrosion in a simple laboratory setup. The precision, i.e., repeatability and reproducibility, of the rotating cage has been established (ASTM G202).

The Rotating Cage has outperformed other test equipment by yielding results that correctly predicted the performance of inhibitors in the field based on both general and localized corrosion. The Rotating Cage test system is relatively inexpensive and uses simple flat specimens that allow replicates to be run with each setup. The Rotating Cage can also be used to select materials for pipes and fittings and to assess the effects of flow on the corrosivity of liquids in refineries, chemical and petrochemical plants.

Applicable Standards

G170 (Standard Guide for Evaluating and Qualifying Oilfield and Refinery Corrosion Inhibitors in the Laboratory)

G184 (Standard Practice for Evaluating and Qualifying Oilfield and Refinery Corrosion Inhibitors Using Rotating Cage)

G202 (Standard Test Method for Using Atmospheric Pressure Rotating Cage)

Technical Specifications

Performance Data

Measurement Technique: Mass Loss

Operating Conditions:

- Max Operating Temperature: Up to 70°C (158°F)
- Rotational Speed: Up to 1000 rpm

Corrosion Coupons: Eight Coupons (Length 75 mm x Width 19 mm x Thickness 3 mm and Surface Area 34.14 cm²) with Surface Finish of 150 grit.

Minimum solution volume (cm³) to metal surface area (cm²): ≥ 14 cm.

Electrical Data

Power: 1Ø, 100~120VAC Input, 1/8 HP, 0.8 Amps

Physical Data - Dimensions (L x W x H)

Instrument: 11 x 8.5 x 26 1/8 in (66.4 x 21.6 x 28 cm)

Control Unit: 9 x 7 x 5 in (22.8 x 17.8 x 12.7 cm)

Chemical Compatibility

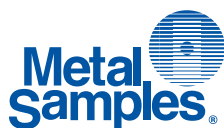
Wetted Materials: PTFE, Polycarbonate, SS 316L, Rubber (Seal)

Non-Wetted Materials: Aluminum

Atmospheric Pressure Rotating Cage Assembly (Part # TF4500) - includes test chamber, controller, and 1 set of 8 coupons (Part # COZ733777104100)



Atmospheric Pressure Rotating Cage to Evaluate Corrosion Inhibitors in the Oil and Gas Industry



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