

Rotating Cage Apparatus

For Evaluation of Corrosion Inhibitors per ASTM G170 and Other Methods

Evaluation of corrosion inhibitors for use in refinery and oilfield applications typically requires apparatus that can simulate the interaction between the corrosive fluid and the carbon/low alloy steel used in the construction of the refinery, pipeline, or drilling equipment. ASTM G170 describes the use of a rotating cage (RC) for such testing.

Parr can provide a complete high pressure, high temperature RC system (pictured) which typically includes the following components:

- Reactor system made of Alloy C276 or other corrosion resistant alloy, with included rotating cage
- Gas feed system to deliver CO₂, H₂S, or N₂
- Liquid feed system to deliver acid or inhibitor
- Reflux condenser and pressure controller
- Automated or manual control and data logging system

Pressure and temperature ratings, reactor volume, material of construction, number of gas and liquid feeds, and control system specifics can be customized to meet individual testing requirements.

Contact Parr's Technical Sales team to discuss details.



5 Liter Vessel lowered to reveal the rotating cage. In this configuration, up to 8 coupons at up to 2,000 rpm, can be tested at one time.

Rotating Cage Apparatus Specifications

Maximum Operating Pressure	200 bar
Maximum Operating Temperature	200 °C
Wetted Materials	C276
Coupon # / geometry	8 / Variable
Reactor Volume	5 L
Max rotation rate	2000 rpm