

# HYDROGEN INDUCED CRACKING TEST TANK

## HYDROGEN INDUCED CRACKING TEST TANK

### OVERVIEW

Cortest offers a variety of different Hydrogen Induced Cracking (HIC) test tank designs that can be used to study the corrosive and embrittling effects on a metal sample in a hydrogen enriched aqueous environment. Available in rectangular and cylindrical models, these HIC tanks are suitable for samples specified in NACE TM0284 as well as 3 or 4 point bend fixtures specified in both NACE TM0177 and ASTM G39. Each model can be designed to accommodate any desired volume. HIC tanks are typically used for ambient pressures and temperatures but these can be provided with environmental control coils to allow testing from 0°C to 40°C. **Alternative designs are available for higher temperature testing. Test tanks are designed so that they may be installed in any Cortest fume hood or any standard laboratory fume hood.** For standalone systems, Cortest HIC tanks can be paired with the Cortest gas selection and flow control enclosure for a complete solution.

CATEGORIES : OIL & GAS | STEEL | RESEARCH

## TEST METHODS

**NACE TM0284  
ASTM G39**

## MATERIAL OF CONSTRUCTION

**POLYPROPYLENE, PVC,  
OR GLASS**

## CAPACITIES UP TO

**55 LITERS**

## HYDROGEN INDUCED CRACKING TEST TANK

### SYSTEM FEATURES

- Materials of Construction: Polypropylene or PVC Body Construction
- Acrylic Lid with O-Ring Seal
- Capacities Up to 55 Liters
- Quick-Disconnect Fittings for Simplified Access
- Optional C-276 Environmental Control Coil
- Custom Porting  
NPT  
pH Probe
- Coupon Holder Options  
3-Point Bend Fixtures – NACE TM0177, Method B  
4-Point Bend Fixtures – ASTM G39  
4-Point Bend Fixtures – NACE TM0316  
Specimen Rack – NACE TM0284 Samples  
DCB Specimen Rack – NACE TM0177, Method D

### TYPICAL APPLICATIONS

- Stress Corrosion Cracking – NACE TM 0177 Method B
- Pipeline and Pressure Vessel Material Samples – NACE TM0284
- Long/Short Term Environmental Exposure Testing
- Microbiologically Influenced Corrosion (MIC) Studies
- Electrochemical Studies
- Performance Evaluation of Coatings
- 3 and 4 Point Bend Fixtures – ASTM G39