

# PROOF RINGS

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### OVERVIEW

Cortest proof rings were first commercially available in 1977 as our original product to meet the testing requirements of NACE TM 0177 test method which is used to determine materials that meet the NACE material requirement of MR 0175. The proof ring test system is the most widely used method for evaluating sulfide stress corrosion behavior of materials. Its compact size, accuracy, and ease of use provide an economical means for testing multiple specimens simultaneously in a fume hood. **Proof rings are precision machined from a single piece of proprietary alloy steel, and are then individually tested to obtain the relationship between load and ring deflection. Each ring is supplied with a unique test report, and are accurate to within 1% at full load.** From ambient conditions to high pressure and high temperature, multiple types of vessels can be used with these proof rings to fulfill the requirements of even the most demanding application.

**CATEGORIES :** OIL & GAS | STEEL | RESEARCH

TEST METHOD  
**NACE TM0177**  
(Method A)

ALSO OFFERS  
**75,000 –  
250,000 PSI**  
(75-250 KSI)

ALSO OFFERS  
**AMBIENT  
TO HPHT**  
(Custom Solutions Available)

## PROOF RINGS SYSTEM FEATURES

- Construction: Epoxy Coated Proprietary Alloy Steel**
- Available Stress Ranges**  
0-75,000 PSI (517.2 MPa)  
0-100,000 PSI (689.5 MPa)  
0-150,000 PSI (1034 MPa)  
0-200,000 PSI (1379 MPa)  
0-250,000 PSI (1724 MPa)
- Available Vessels**  
Ambient Condition Acrylic (Standard)  
Pyrex Glass Vessels  
PTFE Vessels  
High Temperature Vessels (Up to 100°C)  
Temperature (HPHT) Vessels (Up to 220°C at 15.2 MPa)
- Ancillary Equipment**  
Fume Hoods for up to 80 Proof Rings  
Environmental Control Bath  
Proof Ring Loading Fixture  
Exhaust Gas Neutralization Tank Assemblies

## CONTROLS

- Gas Flow Control Enclosures to Meter N<sub>2</sub> and H<sub>2</sub>S
- Multi-Channel Timer Panel to Measure and Record Time to Failure
- Model 12.6 Temperature Control for High Temp Vessels

## TYPICAL APPLICATIONS

- Stress Corrosion Cracking – NACE TM0177
- New Product Development/Testing
- Quality Testing