

# CERT/SSRT

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### OVERVIEW

Cortest Load Frame Test Systems can be used for Slow Strain Rate Testing (SSRT), Constant Extension Rate Testing (CERT), Corrosion Fatigue Testing (CF), or for many other custom applications requiring mechanical loading. These systems are used to rapidly evaluate alloy performance and can be configured to use Cortest autoclaves, tressures, or ambient condition test chambers to simulate corrosive field conditions. The load frames are designed to be extremely 'stiff' to minimize machine compliance. Testing with these systems is performed in accordance with NACE standard TM-0198. Each testing system come complete with Cortest's proprietary software and data acquisition system. The operator interface features an intuitive setup screen that allows the user to easily set-up, run, monitor, and review tests. **Cortest Load Frame Test Systems can be supplied with pull-through autoclaves that conform to international standards such as PED, CSA, CE, DOSH, and the China Special Equipment Manufacture License.**

CATEGORIES : OIL & GAS | STEEL | NUCLEAR | RESEARCH

## TEST METHODS NACE TM0198

LOAD CAPACITY OF  
**6,000 lbs, 10,000  
lbs, 20,000 lbs**  
(2722kg, 4530kg, 9072kg)

EXTENSION RATE RANGES FROM  
**10e-7 mm/s to  
3.5 mm/s**

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### SYSTEM FEATURES

- Electrically Isolated Grip Sets
- Water-Cooled Feed-Thru Fittings Available
- Dual LVDTs for Maximum Sensitivity at Low Load Levels
- Environmental Chamber Options
  - Pull-Through Autoclave
  - Ambient Conditions Vessel
- Load Capacities Available: 6,000 lbs (2722 kg), 10,000 lbs (4530 kg), and 20,000 lbs (9072 kg)
- Floor or Portable Models Available
- Rigid 4-Column Construction
- Stepper or Servo Motor Drive with Gear Reduction
- Precision Load Measurement with Accuracies as High as +/- 0.03% FS
- Precision Displacement Measurement with Accuracies as High as +/- 0.0015 mm FS
- Extension Rate Ranges from 10e-7 mm/s to 3.5 mm/s

- Pressures Up to 62 MPa (8,992 PSI) with Autoclave Capacities Up to 5 Liters
- Temperatures Up to 600°C (1112°F)

### CONTROLS

- PC Controlled Data Acquisition System
- Compact Tabletop Design
- Keyboard/Mouse Interface
- 23" Monitor
- DCPD Capabilities (30A/20V Power Supply)
- LabVIEW Based Software Tests
  - Slow Strain Rate Test
  - Constant Load Test
  - Fatigue Test
  - Creep Test

### TYPICAL APPLICATIONS

- Slow Strain Rate Testing – NACE TM 0198
- Constant Load Testing – NACE TM 0177
- High Temperature, High Pressure Stress Corrosion Cracking
- Electrochemical Studies
- DCPD Testing – ASTM E647
- New Product Development/Testing
- Supercritical Steam
- Nuclear Flow

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