**DCPD TESTING**

### OVERVIEW

Direct current potential drop (DCPD) testing is a widely accepted method of measuring crack growth by applying a current to a specimen and measuring the electric potential across the crack plane. As the crack grows, so does the electric potential. Cortest DCPD grips and fixtures are intended to be used with a pull-through autoclave in a CERT/SSRT or corrosion fatigue load frame. This way, the specimen will be submersed in a corrosive environment while subjected to tensile loads. The grips are electrically isolated so that they do not interfere with the potential measurements. **High pressure and high temperature isolated feed through fittings are included with this assembly to provide access to the electrodes while maintaining a high pressure, high temperature seal.**

### CATEGORIES
- Oil & Gas
- Nuclear
- Research

### SYSTEM FEATURES
- Uses Switchable DC Current with Precision Measurements for Determining Crack Growth
- National Instruments Stepper Motor Drive and I/O Modules
- DC Power Source
- Capable of Measuring/Calculating K Values
- Isolated Vessel Feed-Through Fittings
- PC Controlled Data Acquisition System
- LabVIEW Based Software Tests
  - Slow Strain Rate Test
  - Fatigue Test
  - Creep Test

### TYPICAL APPLICATIONS
- CERT/SSRT Load Frames
- Corrosion Fatigue Load Frames
- Pull-Through Autoclaves
- DCPD Testing – ASTM E647

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