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 submerged 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

**DCPD TESTING**

**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