## Slow Strain Rate Tester (SSRT)

Stress corrosion cracking (SCC) is the growth of cracks in a corrosive environment. It can lead to unexpected sudden failure of normally ductile metals subjected to a tensile stress. Three conditions are required for SCC to happen: susceptible alloy, corrosive environment and threshold tensile stress.

Slow strain rate testing (SSRT), also called constant extension rate tensile testing (CERT), is a standard method of testing of materials, often metals, in which the specimen is subjected to elongation at a constant rate. The load is varied to maintain the constant extension rate. While extended, the material is exposed to an environment (temperature, specific fluid, etc.).

## **Features**

- Accelerate the SCC process in laboratory
- Slow strain rate testing of a sample with exposure to environmental condition
- Capability of imposing stress up to five tones
- Strain rate of 10<sup>-4</sup> to 10<sup>-7</sup> s<sup>-1</sup>
- Capability of investigation the potential effects
- Determination of SCC susceptibility of alloys in the specific environment





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