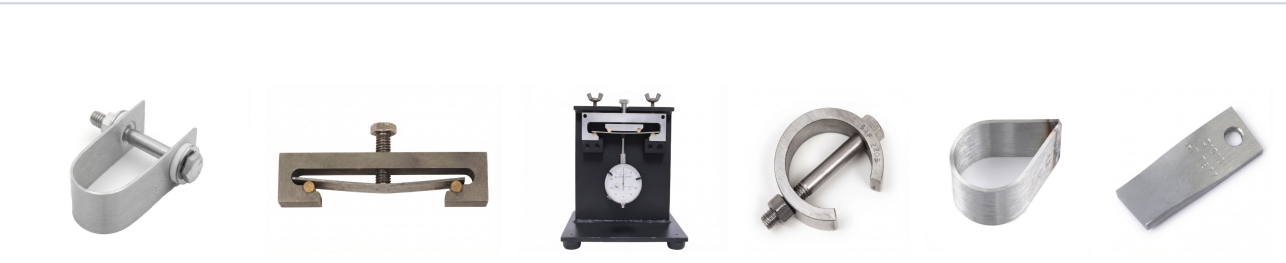
Stress Corrosion Coupons & Assemblies

ASTM G30, G38, G39 & G58 Specimens for Stress Corrosion Cracking (SCC) Evaluation

As an authorized Metal Samples distributor, Imotron supplies stress corrosion cracking (SCC) specimens and stressing assemblies for evaluating materials subjected to combined tensile stress and corrosive environments. Testing for SCC is critical in storage tanks, pressure piping, and process vessels across chemical processing plants and petrochemical refineries. Specimens are manufactured in accordance with all applicable ASTM standards—including **ASTM G30**, **G38**, **G39**, and **G58**—or to custom customer specifications.



Standard Stress Corrosion Coupon Geometries & Stressing Fixtures (U-Bend, Bent Beam, C-Ring, Tear Drop & Twist Specimens)

1. Standard Stress Corrosion Specimens & Fixtures

Select from standardized ASTM specimen geometries and stressing frames below, or request custom dimensions and alloy configurations.

Part Number	ASTM Standard	Specimen Type & Configuration Details
P/N CS502	**ASTM G30**	**U-Bend Specimen:** Standard U-bend stress corrosion test specimen (5" L × 3/4" W × 1/16" T; 3/8" centrally located mounting hole; 1/2" bend radius).
P/N CS502W	**ASTM G58**	**Welded U-Bend Specimen:** Welded U-bend specimen for evaluating stress corrosion cracking susceptibility in weldments and heat-affected zones.
P/N TF2445	**ASTM G39**	**3-Point Bent Beam Assembly:** Bent beam specimen holder and fixture for 3-point loaded stress corrosion testing.
P/N TF2404 / TF2447	**ASTM G39**	**4-Point Bent Beam Assembly:** P/N TF2404 Stressing Frame supplied with P/N TF2447 4-Point Bent Beam Assembly for uniform tensile stress distribution.
P/N CS513	**ASTM G38**	**"C" Ring Specimen:** Precision-machined C-ring specimen for evaluating SCC in tubing, piping, and cylindrical sections.
P/N CS500	Custom / Standard	**Tear Drop Specimen:** Self-stressed tear-drop geometry for high-stress corrosion testing.

Part Number	ASTM Standard	Specimen Type & Configuration Details
P/N CO303	Custom / Standard	**Twist Specimen:** Torsional twist specimen for specialized stress corrosion evaluations.

Pre-Stressing & Dimensional Note: Metal Samples does **not** pre-stress specimens. C-rings (ASTM G38) and Bent Beam specimens (ASTM G39) require measured mechanical stress to be applied by the end user prior to exposure. Standard U-bend strip blanks measure 5" (L) × 3/4" (W) × 1/16" (T) with a 3/8" diameter hole and 1/2" radius, with optional stenciling 1/2" from the end.

Order ASTM Stress Corrosion Specimens & Stressing Fixtures

Contact Imotron Instruments with your required alloy, ASTM geometry (G30, G38, G39, G58), surface finish, and custom dimensional drawings.