

Bending Progress

In order to induce residual stress, samples will be bent using a 4-point bend fixture on loan from Los Alamos National Labs. By using a 4-point bend fixture, a large area of constant stress can be created for testing.

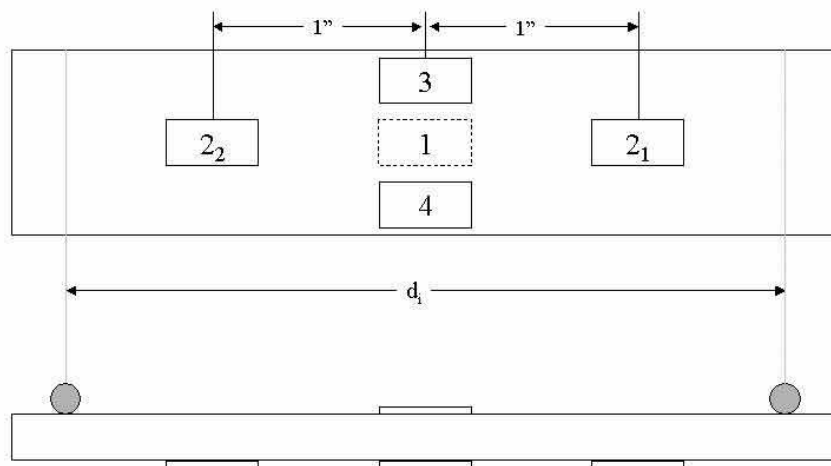


Fixture Setup



Close-up of Bend Fixture

The desired result from the bend is a section between the inner contact points that has constant stress properties. To assure this requirement, a test bend will be performed with 5 strain gauges positioned on the bar as seen below. Unfortunately, due to a limitation of our equipment, only 4 of the strain gauges can be read and recorded at any given time. Therefore, the gauges labeled 21 and 22, will be traded for each other between tests. After the test, the gauges 1 and 2, and 3 and 4 can be compared to assure that there are no unwanted torsion forces being created by the test fixture.



Results from the Torsion test verify the required lack of torsion forces.