



Capacity of Damaged Steel Columns

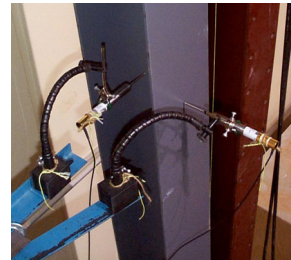
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Test Program

An industrial client sponsored this project to test a series of steel columns after first simulating the damage that might occur in a warehouse accident. The columns are built-up I sections with relatively thin elements – the overall size is similar to a hot-rolled W8x31 but the flanges and web are much thinner.

The pre-test damage

The columns were pinched in a hydraulic press to deform one half of one flange or, as shown at right, to buckle the web. When this damage was done near the base plate the



LVDTs measure lateral displacement



Typical top pin of test setup

