Seismic Resistance Experiment Center, Aichi Institute of Technology

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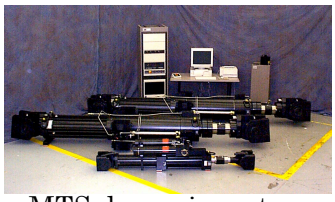
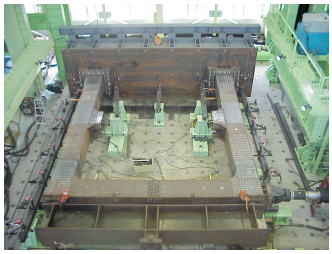
http://aitech.ac.jp/seirex/

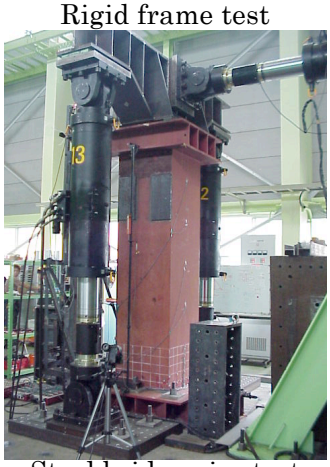
Outline: In 1998, the Seismic Resistance Experiment Center (SEIREX) was established for research on seismic resistance experiment for civil and architectural structures especially for bridge piers. Since then, SEIREX has performed as a leader of seismic resistance experiment to improve seismic resistance capacities and develop seismic resistance design in Japan. SEIREX have two types of MTS dynamic and RIKEN static loading system. And SEIREX have also 2-dimensional shaking table.



MTS dynamic system



Rigid frame test



Steel bridge pier test

3 dimensional loading test

Base-isolated test bed

Research Areas:

Experimental Study on Concrete-Filled Steel Tubular Columns under Cyclic Loading

A Study on the Strength and Deformation Capacity of Inverted L-Shaped Steel Bridge Piers Subjected To Out-of-Plane Cyclic Loading

A Study on a Seismic Isolation Design Considered Cyclic Shear Deformation Performance of Rubber Bearings

A Study on the Seismic Performance of Steel Bridge Piers Subjected to Bi-Directional Horizontal Loads

A Study on the Strength and Ductility of Steel Bridge Piers with Tapered Plates.

Experimental Study on Seismic Resistance Performance of Steel Piers with Compression Core

Seismic Resistant Performance Test on Steel Bridge Piers with Low Yield Steel at its Base.

A Study on Seismic Resistance Capacity for Repaired Damaged Steel Bridge Pier with Rectangular Cross Section.

A Study on Repair Method of Circular Steel Bridge Pier which have Local Buckling.

Features of Research Activities

SEIREX is a joint experimental research center between industry and government and university. The major activities of the SEIREX are seismic resistance experiments for piers, rubber bearing, steel damper. The test bed has base-isolating device and we are able to adopt many experiment setup, for example 2 or 3 dimensional loading test for bridge piers, up to 8 axis loading test and shaking table test .