

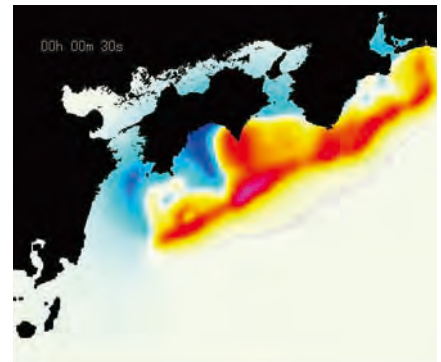
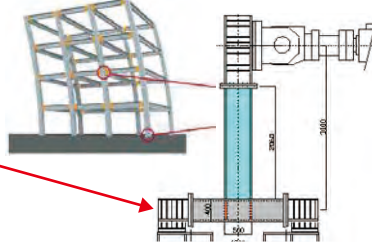
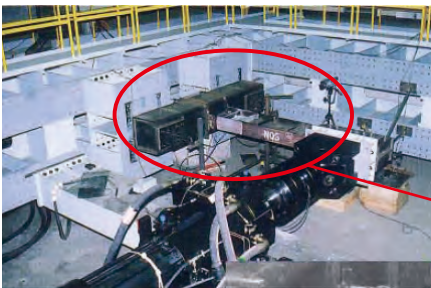


Civil Engineering

JFE Steel develops the civil engineering technologies for improving earthquake resistance and disaster prevention, design and construction, and steel materials application, assigned to protect the environment and construct the social infrastructure with safety and security.

Earthquake & Disaster Prevention Technology

JFE Steel possesses some of the world's leading large scale test equipment, including high speed loading testing machines, structural fatigue testing machines and wind tunnels. We also have state-of-the-art technologies for evaluation of safety against disasters such as earthquakes and tsunamis. With these strong points, we are making proposals for improving earthquake resistance and disaster prevention performance and utilizing steel materials by applying evaluation techniques for the seismic performance of steel structures, hybrid structures, etc. and simulation technologies for prediction of the propagation of earthquake ground motion and tsunamis, prediction of ground liquefaction, etc.

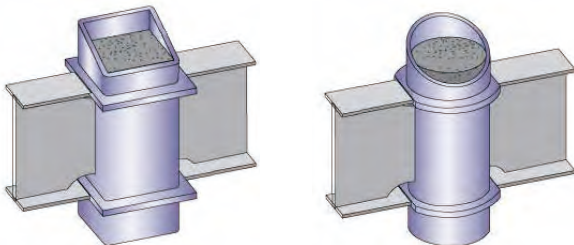


Experiments for evaluating seismic performance of beam-to-column joints by partial steel frame of steel structure (high speed loading testing machine)

Simulation of tsunami assuming a Tonankai/Nankai earthquake

Design & Construction Technology

We propose structural concepts for steel members and steel-concrete composite members for application to steel structures, bridges, port and harbor structures and other structures. We also evaluate structural performance by experimental and analytical studies and promote the development of rational design and construction technologies.



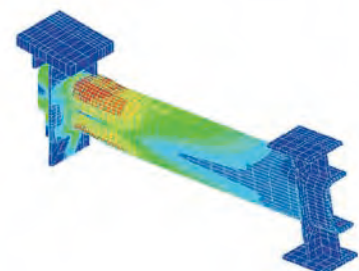
Concrete filled steel tube (CFT)

Application of Steel Materials to Social Infrastructure

In order to apply steel materials to social infrastructure we perform analytical and experimental evaluations to improve the deformation capacity, fatigue life and corrosion resistance of steel members. These results lead to proposals for safer use of steel materials to customers.



Toe wings and a construction method of the JFE Tsubasa Pile™



Bending experiments and analyses of cold forming press column with 385 N/mm² class high strength steel