

High-rise Seismic Retrofit Seal Beach, California

Client: Rockwell International Corporation
Main Contractor: Morley Construction Company
Installation Contractor: Adams and Smith, Inc.



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Flat Jacks help carry the load at Rockwell International's eight-storey office building in Seal Beach, California. The building's concrete columns each have bearings, an isolator assembly and Flat Jacks as permanent components. Flat Jacks were used because they have the unique capability of fitting in a confined opening, gradually taking on loads and permanently maintaining desired height.

Dynamic Isolation Systems, Inc., CA, designed and supplied the rubber and steel-laminated isolators which were used on the project. Due to the building's geometry and operational constraints, the owner decided to have the isolators installed in cuts made between the first and second floor columns.

A Flat Jack was placed on each isolator and inflated with epoxy resin to transfer the building loads to the isolator. The interior columns (carrying 1 million pounds each) had a single flat jack, while the exterior columns (supporting 1.5 to 2 million pounds each) had two adjacent flat jacks which were inflated simultaneously with epoxy resin to insure

equal column loading to each isolator. A total of 78 Flat Jacks were used on the project in sizes ranging from 690 tonnes to 1,065 tonnes. Each Flat Jack became a permanent part of the building isolation system.

