

18. Development of Tuned Mass Damper for Slab Vibration

Katsuo Yaginuma, Koichi Inadome

Long slabs are recently increasingly used in office buildings to meet the increasing demands for indoor spaces with no columns, in which the spaces can be freely partitioned. Since the natural period of ultra long slabs are similar to the frequencies of vibrations that are easily felt by people, buildings of ultra long slabs are possible to suffer environmental vibration. Reinforcing the structure and installing vibration control facilities are effective to control the issue. Particularly, devices for controlling vibration of floors is effective and easier than reinforcing structures. This paper describes an overview of a vibration control facility, which effectively controls vertical vibration of slabs, and a full-scale test for verifying the effects.

Key words : comfortableness, vibration control facility, environmental vibration, steel slab, vertical vibration