

EARTH-QUAKE RESISTANT BUILDING

- ✓ Basic Approach to design the building
- ✓ Conventional Approach to design the building

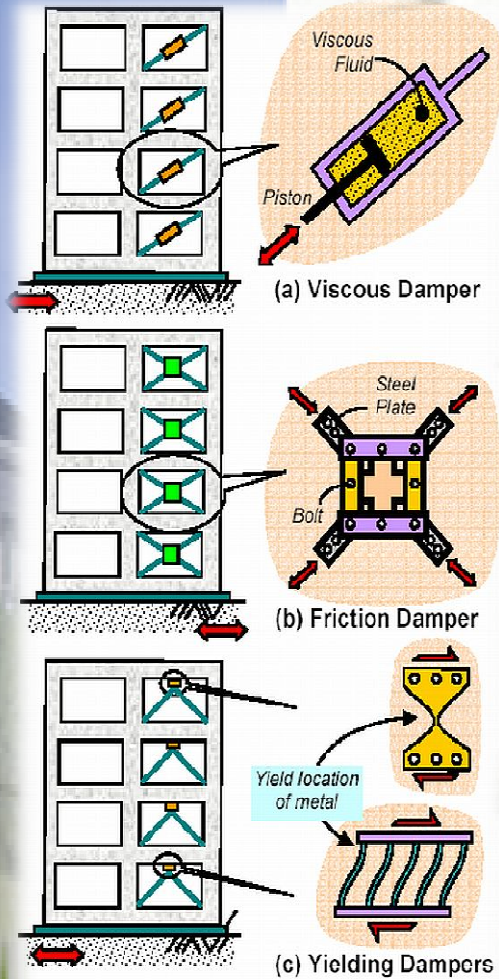
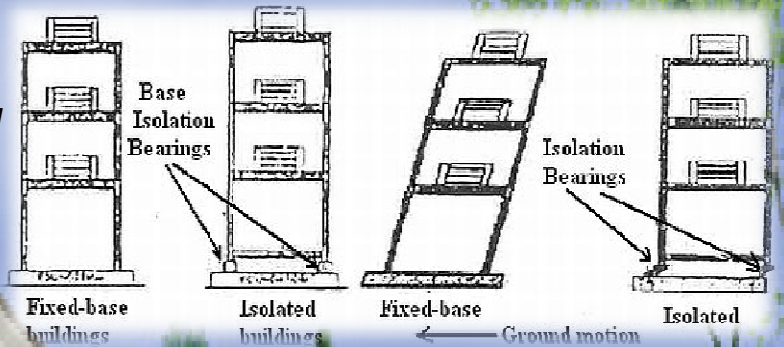
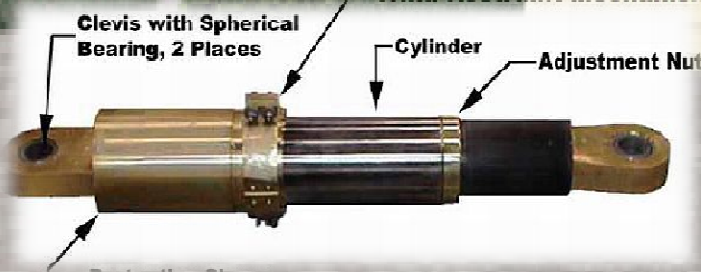


Figure 3: Seismic Energy Dissipation Devices – each device is suitable for a certain building.

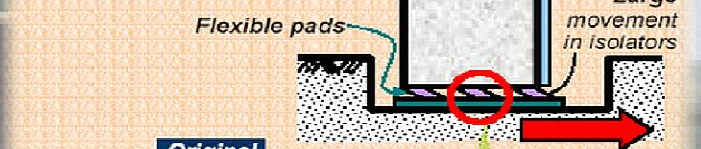


If the gap between the building and vertical wall of the foundation pit is small, the vertical wall of the pit may hit the building, when the ground moves under the building.

(a) Hypothetical Building

Building on rollers without any friction – building will not move with ground

Forces induced can be up to 5-6 times smaller than those in a regular building resting directly on ground.



(b) Base Isolated Building

Lead plug

Original Isolator

Stainless steel plates

Flexible Material

Isolator during Earthquake

Building on flexible pads connected to building and foundation – building will shake less

Forces induced are large.

(c) Fixed-Base Building

Building resting directly on ground – building will shake violently

Figure 1: Building on flexible supports shakes less – this technique is called Base Isolation