Public Education Shake Tables

ANCO provides public education shake tables as well as scientific, research shake tables worldwide. Public Education Shake tables are used by universities, science museums, emergency planning and education ministries, and other public education institutions to provide the public and emergency responders with a realistic experience of being in an earthquake. In conjunction with educational exhibits, videos, and lectures, such tables can prepare students and adults alike to better respond in an earthquake – with reduced fear, safer procedures, and less surprise. A well known educational precept is that the more senses one uses to learn about a subject, the better the lesson is learned. Experiencing the actual motions of an earthquake adds another dimension to the learning process. These lessons save lives.

In addition, these tables are also suitable for investigating certain engineering issues related to earthquake safety – such as the adequacy of wall attachments for book shelves and pictures, for suspended lighting or ceilings, or for the overturning of furniture or office equipment. A public education shake table does not need the precision or full instrumentation of a research shake table. Hence such tables are more economical than research tables.

Features

- ANCO’s designs can be customized to meet the client’s needs.
- Designs with capacities ranging between 1-40 passengers.
- Designs accommodating 1, 2, or 3 independent axis of motion.
- Can be permanently mounted in a facility or can be truck mounted for a mobile teaching facility.
- The shake table surface can be a simple platform, rows of chairs, or a simulated room with furniture.
- Controlled by ANCO’s easy to use Poseidon control software with the following capabilities:
  - Library of artificial and historical earthquakes.
  - Video and audio output to enhance realism.
  - Digital control for special effects (i.e. strobe lights, smoke machines, etc.).
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Safety is Top Priority!

ANCO public education shake tables have numerous safety features, to absolutely minimize the possibility of causing injury to the public and table operators. These safety features include:

- **Acceleration limited by the fundamental physics of the mass of the table and peak force of the actuator.** Acceleration is typically kept at or below 0.5 g. This is still able to simulate typical earthquake epicentral motion up to Richter Magnitude 7.
- **Soft stops** – the end of travel of the table has soft long-deformation bumpers to limit shock in the advent of over travel.
- **Electronic stops** – the control electronics turns the table off if a certain displacement is exceeded.
- **E-Stop switches** – emergency stop buttons are placed on the table, at the operator station, and elsewhere in the display room to allow quick earthquake termination in any unusual situation.
- **Pinch point caution** – the table design minimizes pinch points and clearly marks the few that exist (or covers them with cowlings).
- **Legs below the table that support the table in case of actuator de-power.**
- **Railings to keep people from falling off the shake table.**
- **Reliable control system** – a time proven PC based servo control system (Poseidon) provides the operator with a reliable level of control.
- **All-electric drives** – which eliminate the high pressure oil, leaks, and stored energy of servo-hydraulic systems.
- **Training manual** – provides full system use instructions with detailed safety procedures and checklists.
- **Safe Loading/Unloading** – Ramps or stairs with hand rails used to protect passengers as they enter or exit the table.