

SEISMIC SHAKE TABLES FOR COMMERCIAL DEDICATION PROGRAMS

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This paper describes the design and capabilities of an independent triaxial seismic shake table and its use in an electric utility commercial grade equipment dedication program. The R-7 table was specially designed to provide an inexpensive high performance table for the seismic qualification of equipment weighing under 450 Kg (1000 pounds). This represents over 80% of the qualification load currently facing American utilities, and is used to provide quick turnaround and uniform testing of commercial grade equipment. Utilities have become increasingly dependent on self qualified commercial equipment as there is much less nuclear grade (qualified) equipment now available, due to the exit of many manufacturers from the nuclear market.

The R-7 table has maximum input capacity of +/- 10 cm (+/- 4 inches), 1 M/sec (40 ips), and 10 g's. Hence, it is capable of exposing equipment to seismic test spectra in excess of those required in essentially all power plant sites and locations.