

# ANCON NEWS

## ENERGY, SYSTEMS, & STRUCTURES

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Volume 5, No. 2. October 1995

### R100E INDEPENDENT TRIAXIAL SEISMIC SHAKE TABLE

**In October 1995 ANCO Engineers is delivering two R100E tables to a large relay manufacturer and to a third party dedication and equipment supplier**

The R100E offers utilities and suppliers an affordable in-house alternative to the use of outside seismic testing laboratories. A complete yet compact servo-electric table, the R100E performs seismic qualification of lightweight equipment to IEEE-344-1987 and Bellcore TR-NWT-000063 standards. Utilities and equipment suppliers can control costs and quality, and improve turn-around by testing on-site. The R100E is cost effective for organizations performing a few as five seismic tests per year.

#### **No Hydraulics**

The R100E eliminates servo-hydraulic issues of pump noise, high pressure lines, leaks, cooling, hydraulic oil storage and disposal, and learning hydraulic operation and maintenance skills

#### **Easy Hook Up**

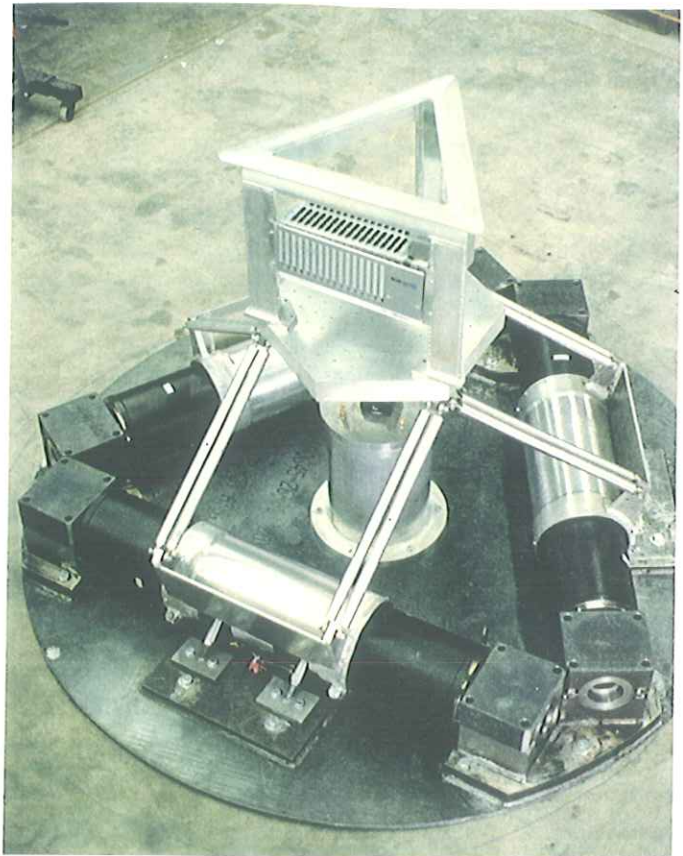
The R100E is driven by 45 KVA of 220 VAC 3 Phase power, normally found in any laboratory, shop, or warehouse

#### **No Special Foundation Required**

The R100E can be mounted on any common industrial concrete ground floor 5 inches or thicker, eliminating the need for large massive foundations or pits

#### **Cost Effective**

The system includes installation, training, dynamic response and chatter monitoring instrumentation, digital data acquisition, and all software required for IEEE-344 testing. Servo-electric systems are simple and highly reliable. The simplicity of the R100E operation eliminates the need for dedicated trained staff to operate and maintain the table



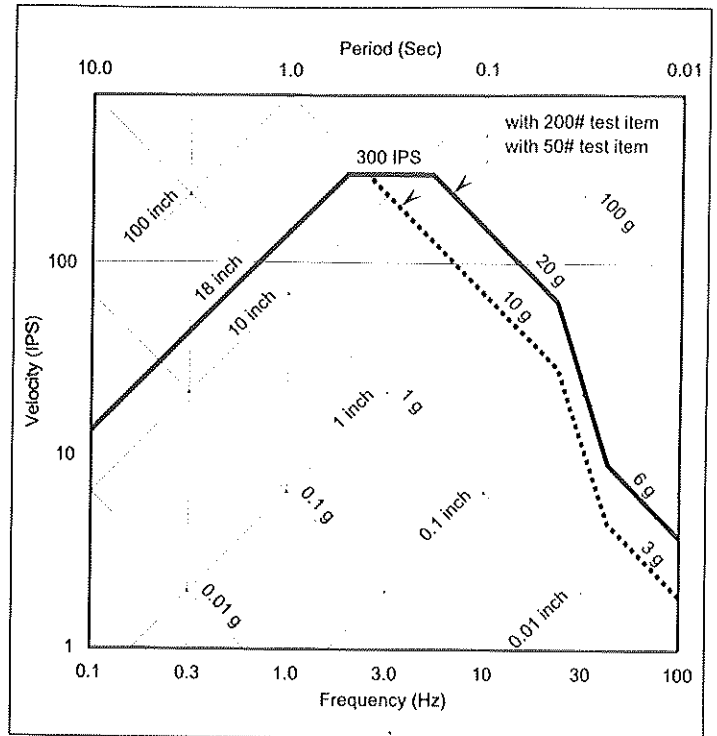
## Compact Design

The R100E table, power amplifiers, and data acquisition system will fit into a 10 ft by 10 ft laboratory space

## High Dynamic Input Capacity

Typical achievable test response spectra (5% damped) are shown in the figure at right. The R100E specifications are:

Table size:	2 ft X 3 ft
Maximum test object weight:	200 lbs (up to 800 lbs with reduced fidelity)
Maximum Input displacement:	+/- 5 inch
Maximum Input velocity:	+/- 75 ips
Maximum Input acceleration (ZPA)	
- with 200 pound test object:	3 g's
- with 50 pound test object:	6 g's

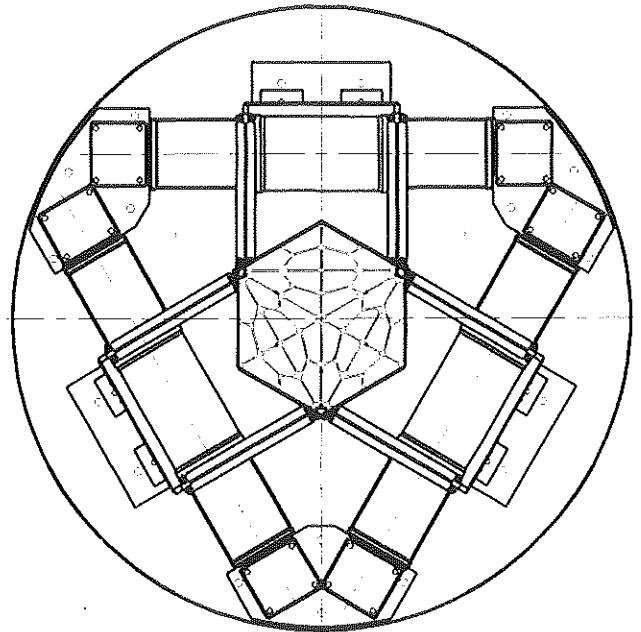


## Fast Triaxial Testing

Independent triaxial testing requires no equipment rotation and re-testing. The test software supplied is easy to learn, and is PC Windows based.

## Meets Current Requirements

The R100E is capable of performing almost all of the seismic qualification tests currently required by utilities, which involve equipment weighing less than a few hundred pounds. With the R100E, the user can maintain total quality control of the qualification and dedication process. Results are available immediately, rather than in weeks or months, and travel by key staff is reduced. The R100E is a useful complement to other seismic qualification options, such as outside test laboratories, analysis, the SQUG GIP, STERI, and SQRSTS.



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