

Vibration test facilities of the Human Factors Research Unit

Horizontal and Vertical Hydraulic Vibrators: 1-m stroke

Description

Single-axis electro-hydraulic vibrators used to provide horizontal or vertical oscillation. Suitable for shaking people, seats, and other structures.

Used for production of sinusoidal, random, or recorded vibration time-histories.

Applications

Fundamental and applied research in areas concerned with human responses to vibration, including comfort and perception of vibration, postural stability, human body impedance, seat performance, motion sickness.

Standardised vibration tests.

Testing to specific requirements of the customer.

Vertical hydraulic vibrator

Outline specification

Displacement:	1 m vertical
Acceleration:	10 ms ⁻² peak
Frequency range:	0 to 50 Hz
Platform:	1 m by 1.5 m
Payload:	400 kg

Horizontal hydraulic vibrator

Outline specification

Displacement:	1 m horizontal
Acceleration:	10 ms ⁻² peak
Frequency range:	0 to 50 Hz
Platform:	1 m by 1.75 m



Vertical vibrator: studies of comfort and perception of vibration



Horizontal vibrator: simulation of motion environments