



The Faraday Test Centre Capabilities of Environmental Facilities

Drop and Topple/Free Fall

Max. mass: 100kg
Max. size: 90cm x 90cm

Bump

Max. mass: 750kg
Max. size: 1.5 x 1.5 x 1.5m

Shock on Vibrator

Max. mass: 750kg
Max size: 1.5 x 1.5 x 1.5m
Peak thrust: 57kN
Max. level: 100g
Max. displacement: 35mm
Slip table size: 0.9 x 0.9m

Shock on shock Machine

Half sine, max. mass: 454kg
Specimen mounting area: 0.95 x 0.95m
Max. acceleration: 600g
Max. pulse duration: 80ms
Max. velocity change: 7.62m/sec

Vibration - Sinusoidal

Frequency range: 2Hz to 5kHz
Peak thrust: 57kN
Max. mass: 750kg
Max. size: 1.5 x 1.5 x 1.5m (limited at high and low temperatures)
Slip table size: 0.9 x 0.9m

Vibration - Random & Mixed Mode

Frequency range: 2Hz to 5kHz
RMS thrust: 40kN
Max. mass: 750kg
Max. size: 1.5 x 1.5 x 1.5m (limited at high and low temperatures)
Slip table size: 0.9 x 0.9m

Vibration - Sinusoidal and at High and Low Temperature

Frequency range: 2Hz to 5kHz
Peak thrust: 26kN
Max. mass: 160kg
Temp. range -60°C to +100°C

Vibration - Random and Mixed Modes and at High and Low Temperature

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Acceleration - Steady State

Max. accel: 30g at 1m
Max radius: 1.1m
Max. mass: 68kg
Max. size: 0.45 x 0.45 x 0.45m

High Temperature - at Low Humidity

Max. temp: +80°C
Min. RH: 10%
Tolerance on RH: ±5%
Chamber size: 1 x 1 x 1.5m
Max. temp: +100°C
Min. RH: 50%
Chamber size: 1.5 x 1.75 x 2.2m

High Temperature - at High Humidity

Max. temp: +100°C
Max. RH: 95%
Tolerance on RH: ±5%
Chamber size: 1.5 x 1.75 x 2.2m

Combined Temperature/Altitude/Humidity

Temp: range: -60°C to +120°C
Max. altitude: 15mB (95,000 feet)
Max. RH: 98%
Chamber size: 1 x 1 x 1.5m

High Temperature - at Low Pressure

Max. temp: +120°C
Max. altitude: 15mB (95,000 feet)
Chamber size: 1 x 1 x 1.5m
Test sample can be supplied with cooling air whilst maintaining altitude conditions (max. 2lbs/min at -45°C to +70°C)

Low Temperature

Min temp: -60°C
In chambers sizes: 1.5 x 1.75 x 2.2m, 1 x 1 x 1.5m and 0.53 x 0.53 x 1.11m

Low Temperature - at Low Pressure

Min. temp: -60°C
Max. altitude: 15mB (95,000 feet)
Chamber size: 1 x 1 x 1.5m
Test sample can be supplied with cooling air while maintaining altitude conditions (max. 2lbs/min at -45°C to +70°C)

Thermal Shock

Max. temp: +120°C
Min. temp: -60°C
Max. rate of change: 10°C/minute

Corrosion - Salt (High Humidity)

Max. temp: +80°C
Chamber Size: 0.9 x 1.2 x 0.85m

Rapid & Explosive Decompression

Chamber Size: 0.9 x 1.2 x 0.75m

Fine Mist

Chamber Size: 0.9 x 1.2 x 0.85m

Rain (Driving)

Wind speed: 18m/sec
Max. rainfall: 12inch/hour
Exposure area (exit of wind tunnel): 0.5 x 0.5m

Immersion

Tank size: 0.9 x 0.9m diameter
Max. depth: 10m (pressurised equivalent)

Over-Pressure Test

Max. size: 0.9 x 0.9m
Max. pressure: 4.1bar

Fluid Contamination

Max. temp: room ambient
Chamber max. size: 0.75 x 0.75 x 0.5m

Supplies available in Laboratory

10kVA, 3 Phase, 400Hz (200V Phase to Phase)
30kVA, 3 Phase, 50Hz (415V Phase to Phase)
3kVA, Single Phase, Variable Frequency
1kVA, 3 Phase, Variable Frequency
240V, 13A, Single Phase, 50Hz
28VDC
Other DC voltages are available

ELECTRONICS & INTEGRATED SOLUTIONS

Airport Works
Rochester Kent ME1 2XX UK
email: paul.j.davison@baesystems.com

BAE SYSTEMS