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WSS WEAPON SHOCK SIMULATOR

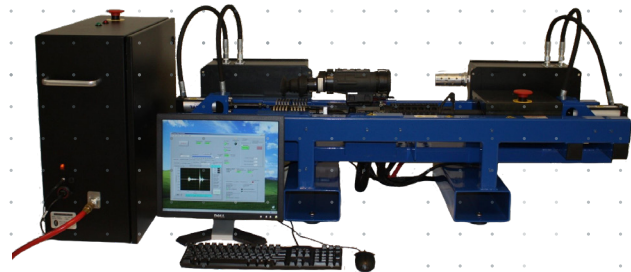
Safe, Low Cost Alternative to Live Fire Testing

The Weapon Shock Simulator (WSS) allows small arms accessory manufacturers, both military and commercial, to simulate live fire within their facility, thus avoiding the costs and safety concerns associated with actual live fire testing. Attach day/night/thermal sights or flashlights/laser range finders to the standard Picatinny (MIL-STD-1913) rail and subject the accessory to two combat loads of live fire equivalence in five minutes, regardless of the outside weather conditions. Evaluate design changes, or complete endurance testing, and record the resulting shock response spectrum (SRS) data in real time for later review/analysis.

The system is capable of replicating the SRS and amplitudes (in the time domain) of multiple small arms weapons. This capability reduces test time and cost for production units, as well as development units, as engineering can evaluate design changes quickly. The user interface (UI) has been designed

to allow a broad range of operators to run the machine with minimal training. The UI also has customizable authorization levels which allows the customer to determine who can service which parts of the system.

As a self-contained system that only requires compressed air and AC power, the system can be placed almost anywhere in a manufacturing location, without any additional facilities effort. The required maintenance actions can be completed after minimal training. The system has been designed to make these actions easy and straight forward. Configuration changes, when needed to switch weapon profile, can be completed in less than 30 minutes without any special tools.



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OUR TECHNOLOGY

Leonardo DRS is a leader in the design and manufacture of advanced electrical machinery, focusing on machines for demanding jobs where efficient performance and precise control are required. Our rugged PM machines are ideal for marine propulsion and generation, offshore oil and gas, commercial marine, yacht, transport, drilling and pumping applications.

FEATURES

- Accurate reproduction of weapon shock in all 3 axes. WSS can replicate both mounted and dismounted weapons as required. Current platform support includes M4/M16, SCAR17, AR-10, SDMR, NGSW, M110
- System comes with integrated data collection and analysis software
- Currently utilized by SOCOM, WSMR and JSOC
- Allows on-site system and accessory testing, eliminating live fire testing expenses such as range cost, weapons, ammunition, Fire Teams/Range officers and travel
- Approved as an alternative to live fire on selected U.S. Army contracts and validated for qualification per MIL-STD-810
- Provides engineers with quick means to evaluate design changes/enhancements.

REQUIREMENTS

Component	Description
Power	110 VAC 60 Hz dedicated
Air	110 psi 45 SCFM

PERFORMANCE

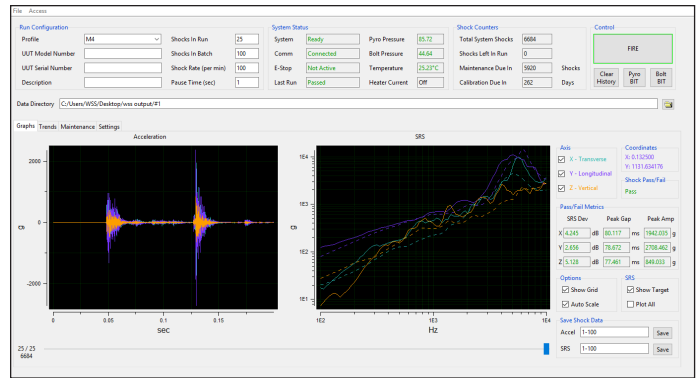
Shocks	Up to 300 shocks per minute
Batch Size	1-100
Run Size	1-10,000
Shock Response Tracking	Real time SRS calculation and display
Shock Response Accuracy	Within +/- 3dB of average live fire
Shock Response	Real time calculation of all 3 axes
Maintenance Requirements	System tracked/alerts provided operator

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SAMPLE USER INTERFACE



PHYSICAL CHARACTERISTICS

Component	Description
Frame Dimensions	51" x 12" x 25" (L x W x H)
Frame Weight	< 250 lbs
Electrical Enclosure Dimensions	24" x 12" x 25 (L x W x H)
Electrical Enclosure Weight	< 65 lbs
Computer Station	Small form factor case, keyboard mouse, 24" monitor

ENVIRONMENT

Temperature	Model 1: down to -40° C Model 2 & 3: Ambient (10°C - 70°C)
Noise Level	Up to 110 dBA during operation at 1 meter
Mechanical/Pinch	Marked and protected w/E-Stops

SYSTEM MODELS

Model 1	Operates down to -40° C and up to 300 shocks per minute
Model 2	Operates at lab ambient temperature and up to 300 shocks per minute
Model 3	Operates at lab ambient temperature and up to 150 shocks per minute

