

STM100 - Free Standing – 100kg Payload – High Speed

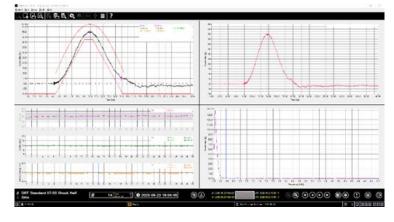
- Shock repetition rate of up to ~1 shock/second
- Closed loop control on shock amplitude
- > 450x500mm payload area
- Resonance free shock amplitudes of up to 600g
- > Ideal for production testing of larger sub-assemblies
- Free standing machine, with own seismic mass

The STM100 meets the requirements of customers with higher mass test objects offering cost effective shock testing. As automobile component suppliers are building ever larger sub-assemblies for a more efficient production line phase, there is requirement for larger capacity shock machines.

Test items are mounted on a 500x450mm aluminum table which can be adapted to interface with quick release platforms for minimum setup time on the production line. Table lifting is achieved by a built-in pneumatic ram which is then accelerated down allowing the table to free fall. Through utilization of timer counters coupled to high precision valves controlled by our IMPALA2 software, this machine generates highly repeatable shocks at a rate of up to $^{\sim}60/minute$.

IMPALA2 is a closed loop control and visualization software that continuously monitors the response signal from the test item mounting platform. Any change in the response amplitude will be immediately corrected ensuring continuous high-quality shocks. A range of current industry standard tolerance zones can be selected and displayed over the response waveform. Full remote control is available for integration into the production environment.





Feature Highlights

- Easy and user-friendly software
- Automatic amplitude control (Closed loop)
- Time function FFT and trend data on peak, duration, and velocity
- > 4 channel data acquisition
- Simple test and data viewer with replay function

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- Comprehensive cursor read-outs
- Tolerance window monitoring



Technical Specifications

PERFORMANCE AND TEST ITEM	MOUNTING
Maximum Test Item Weight	100kg
Mounting Surface	500 x 450mm
Maximum Acceleration	up to 600g
Range of Shock Pulse Width	1ms to 30ms
Range of Velocity Change	0.4m/s to 5.5m/s
Shock Repetition Rate	up to ∼60/minute
Performance Chart	STM100 - Performance Chart 1000 100 100 100 100 100 100
PHYSICAL	
Machine Weight	approx. 1250kg
Required Floor Area	520 x 470mm
Outside Dimensions	450 x 500 x 1050mm (1660mm included safety guard)
REQUIRED UTILITIES	
Air Pressure	4-6 bar (6 bar recommended)
Power	wide range 110/240VAC - 50/60Hz
Min. Software/HW requirements	>= Win10 - Prof. / 1x free USB-A / Full-HD Monitor
Accelerometer	1x Ref. Accelerometer with BNC end



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