

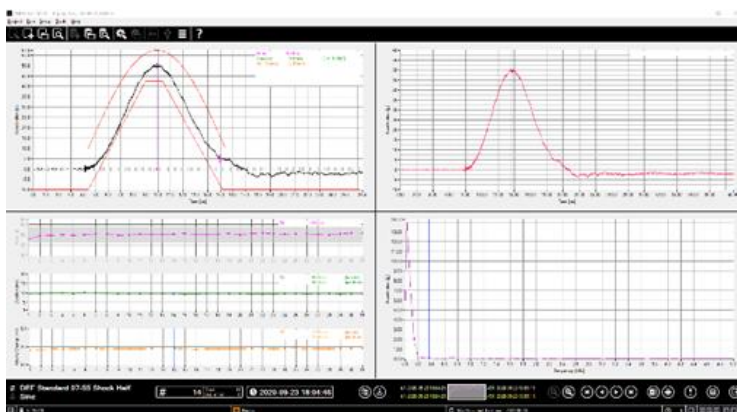
## STM50 - Free Standing – 50 kg Payload – High Speed

- 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 development, life duration and production testing
- Free standing machine, with own seismic mass

The STM50 is the most popular of our flatbed shock machines offering cost effective shock testing. This machine is suited to applications ranging from environmental testing for military standards to automobile component testing in the field of production quality control together.

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 ~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

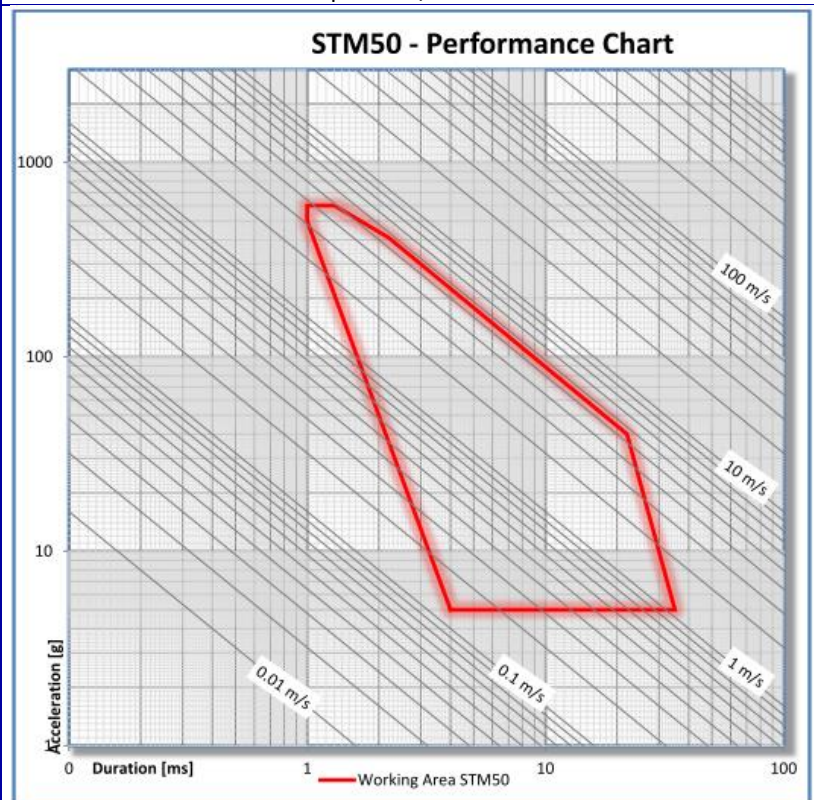
- Easy and user-friendly software
- Automatic amplitude control (Closed loop)
- Time function FFT and trend data on peak, duration, and velocity
- 4 channel data acquisition
- Simple test and data viewer with replay function
- Comprehensive cursor read-outs
- Tolerance window monitoring

## Technical Specifications

### PERFORMANCE AND TEST ITEM MOUNTING

Maximum Test Item Weight	50kg
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



### PHYSICAL

Machine Weight	approx. 980kg
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



**ELSTAR Elektronik AG**  
Hardstrasse 41  
5430 Wettingen  
Switzerland

eMail: [mail@elstar.com](mailto:mail@elstar.com)  
Web: [www.elstar.com](http://www.elstar.com)  
Tel: +41 56-427 18 88

