

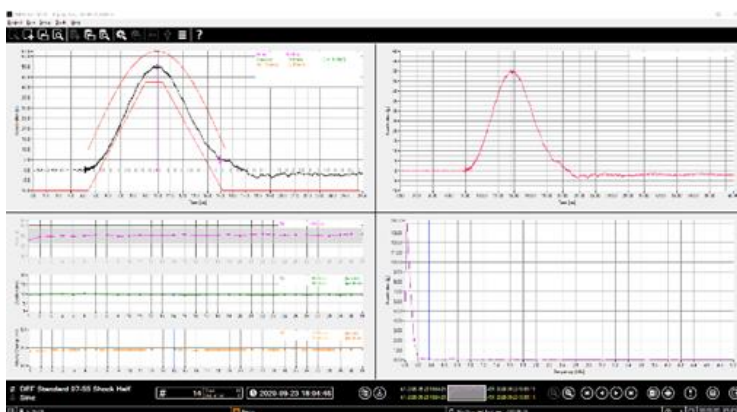
## STM50P - Free Standing – 50kg Payload – High Speed - High Acceleration

- 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 1000g
- Ideal for development, life duration and production testing
- Free standing machine, with own seismic mass

The STM50P is a popular flatbed shock machines offering high amplitudes in combination with high DUT load. The “P” stands for high performance acceleration which makes this machine perfectly suited for applications ranging from military standards to automobile component testing in the field of production and quality.

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

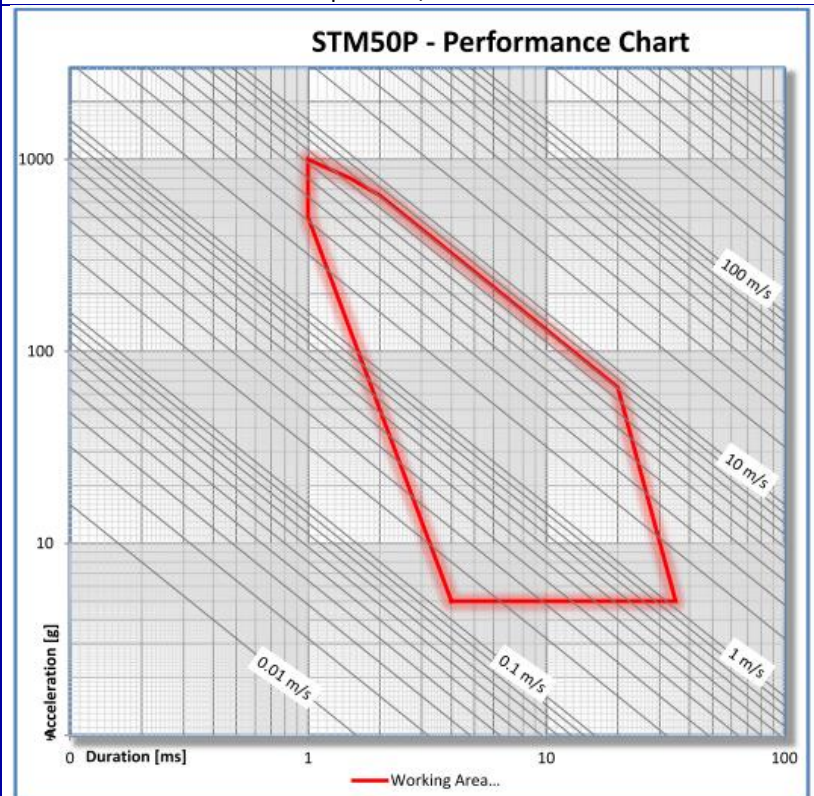
- Easy and user-friendly software
- Automatic amplitude control (Closed loop)
- Time function FFT and trend data on peak, duration, and velocity
- 4 channel data acquisition
- Simple test and data viewer with replay function
- Comprehensive cursor read-outs
- Tolerance window monitoring

## Technical Specifications

### PERFORMANCE AND TEST ITEM MOUNTING

|                            |                  |
|----------------------------|------------------|
| Maximum Test Item Weight   | 50kg             |
| Mounting Surface           | 500 x 450mm      |
| Maximum Acceleration       | up to 1000g      |
| Range of Shock Pulse Width | 1ms to 30ms      |
| Range of Velocity Change   | 0.4m/s to 8m/s   |
| Shock Repetition Rate      | up to ~60/minute |

Performance Chart



### 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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