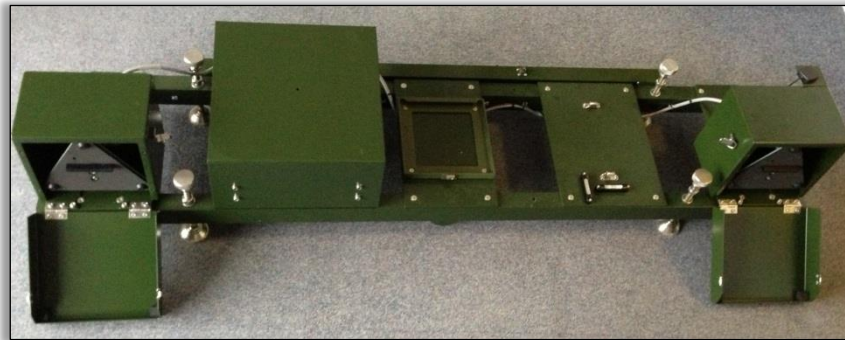




Instant, Effortless Precision



ACOUSTIC TARGET TYPE 541

The MSI Acoustic Target Type 541 provides developers, manufacturers and testing organisations with an accurate means of checking the performance of weapons and ammunition outdoors by measuring the co-ordinates of shots passing through the target area.

This precision electronic target accommodates calibres from 4mm to 150mm, giving the capability of measuring the performance of the full range of weapons from small arms to tank guns.

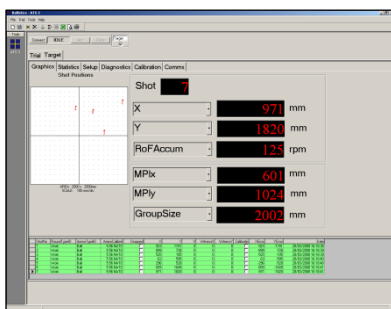
The system replaces paper, canvas, or wood witness targets, and thus removes many associated problems. As such, use of this target dramatically reduces the need for repeated access to the target area, the errors in manual measurement, and the loss of data due to measurement failure.

The elimination of these problems improves efficiency and safety, saves time and effort, and therefore saves money. The MSI Acoustic Target Type 541 is an easy piece of equipment with which to work and makes weapons testing faster and better.

IMPROVES EFFICIENCY AND SAFETY

Simple and Versatile Equipment:

- Suitable for both indoor and field trials
- Single and multi-shot evaluation
- Provides a range of possible calculations



Accurate and Easy Data Recording:

- Instant graphical representation of data
- Results can be stored and graphically printed
- Comprehensive, user-friendly software

Time and Effort Saving:

- Automatic self-check every session
- Requires little maintenance
- Only one installation required



HARDWARE

- **Pair of sensor arrays in a delta format**, mounted with a set distance between them, sense the shockwave generated by the projectile.
- **Signals** generated by these arrays are used to calculate the position of the shot with respect to the target.
- **Arrays are mounted in a protective case with a flip-down lid** and are installed relative to the witness target. The Delta Acoustic Target (DAT) should be protected from direct fire.
- **DAT will detect all projectiles travelling in excess of Mach 1.3** at the target plane, at rates-of-fire of up to 6 000 rpm.
- **Accurate location and evaluation** of single or multi-shot impacts on targets removes need for marking personnel or other witness targets.
- **Target can be configured** into systems with a single processor.
- **Processor Type 663** addresses up to 15 Type 541 targets via a radio link operating at 458MHz (or defined frequency).
- **Radio link** allows the trials officer to select the positions on the range that best suit the aim of the trial, rather than being confined to the location of cable access points.

SOFTWARE

- **Shot positions are instantaneously displayed** on a graphical representation of the target area together with coordinate data and a running total of shots fired.
- **Results can be stored** on completion of each firing test.
- **A graphical printout** can be made for subsequent analysis.
- **A comprehensive user-friendly software package** gives a graphical display of the shot locations and provides a range of mathematical and statistical calculations that can be applied to shots.

APPLICATIONS

Automatic Marking System (AMS) for Training

- **Visible target** which is normally the user's target outline can, if mounted on a suitable mechanism, be caused to pop up and down under Range Processor or Shooters Monitor control.
- **DAT** can be portable whilst on a fixed range, the delta arrays may be mounted directly to the ground.
- **Calculated shot position** is transmitted down the range cabling to the Range Processor from where it is also sent to the Shooters Monitor for display to the firer.

Precision Target for Ballistic Analysis

- **Substantially the same hardware as the AMS.**
- **Control software is considerably different from AMS** such that the user may collect statistical data, and integrate with Pressure, Velocity, and Ballistic Analysis systems.

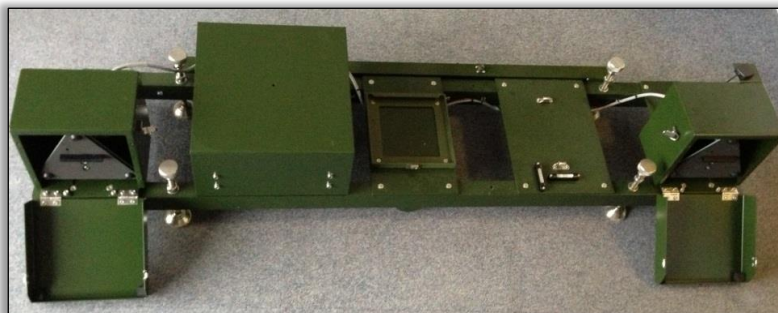
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ISO 9001 SCS cert. No. 980010
541-acoustictarget - Sep-23

The information in this document is correct at the stated time. MS Instruments Ltd has a policy of continuing development and reserves the right to make design changes/improvements to the products.

ACOUSTIC TARGET TYPE 541 SPECIFICATION



CONFIGURATIONS	
Power	12 - 30 VDC
Output Data	True XY Cartesian coordinate data
HIT SENSING	
Projectile Velocity	Mach 1.3 minimum to Mach 5 at target
Hit Frequency	Up to 6000 rpm for 1m target
Active Target Area	Calibre dependent: <ul style="list-style-type: none"> • Up to 5m x 5m for 5.56mm. • Up to 20m x 20m for 30mm.
Calibre Type	All supersonic natures
Measurement Accuracy	<ul style="list-style-type: none"> • ±5mm in still air conditions for 2m x 2m target • ±20mm in still air conditions for 10m x 10m target
ENVIRONMENT	
Operating Temperature	-10°C - +60°C [+14 °F - +140 °F]
Humidity	The unit is fully sealed against the ingress of moisture
Rain	The system operates in light rain
Wind	Fluctuating wind at the target affects accuracy

TARGET DIMENSIONS	
NOTE: DETAILS WILL VARY DEPENDING ON SYSTEM.	
541-450AS Details	Typically 1960mm x 330mm x 435mm.
541-450AS Packing Details	Re-usable Transport Case typically measuring 2050mm x 550mm x 450mm / 105Kg.
541-700AS Details	Typically 1560mm x 330mm x 300mm.
541-700AS Packing Details	Re-usable Transport Case typically measuring 1600mm x 400mm x 400mm / 65Kg.

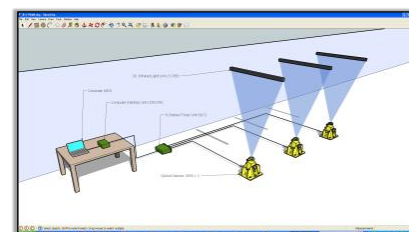
USED WITH



Remote-Control Transceiver
Type 573



Range Processor
Type 663



Projectile Velocity Measurement System

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