Ballistic Testing Lab
Plasan ballistic testing laboratory has been operating since 1989. It was renovated in 2009 and is currently equipped to test rounds between 5.56 mm to 30 mm. It is an independent, comprehensive testing laboratory managed by professionals. Because of our size, scale and the impressive selection of testing equipment, we can provide services quickly and efficiently - without long waiting times. Plasan is Accredited laboratory according to ISO/IEC 17025:2005 by A2LA.

With over 1000 square meters, the laboratory includes two indoor firing tunnels equipped with the latest testing and measurement equipment. The lab conducts tests in accordance to all major standards such as STANAG, MIL, NIJ, VPAM as well as specific customers requests.

Our state of the art ballistic testing lab has performed over 33,000 tests, generating an extensive data and knowledge base.

Our range from testing and qualifying anti-ballistic vests, to spall liners, add on armour plates for vehicles protecting against EFP’s and more.

**Firing Devices**

**Barrels and Barrel Receivers**

Plasan uses all-purpose barrel receivers capable of accommodating up to 30 mm barrels.

**High Velocity 20 mm FSP Gun**

Plasan features a gun that can be operated by adding gunpowder or with cartridges. Testings can be conducted indoors and outdoors.

We can accommodate barrels for 12.7, 14.7 and 20 mm cartridges.

FSP velocities above 1200 m/s and when gunpowder is used velocities of up to 1800 m/s.

**RPG Emulation**

Plasan has developed two types of a gas operated guns, for indoor testing of the inertic RPG warheads, enabling video analysis and measurement of RPGs and explosion.

**Shooting Tunnels**

The lab operates two independent firing tunnels.

**Tunnel 1:**

- 30 meters long.
- Up to 30mm projectiles.

**Tunnel 2:**

- 20 meters long.
- Capable of testing up to 7.62mm projectiles, rifle and handgun ammunition.
- Used primarily to test personal armor testing including aging and environmental tests.
Ammunition

The Plasan ballistic testing lab has extensive expertise in all types of ammunition. We maintain large stocks of live ammunition and surrogates that can be tested.

Available Munitions

Munitions and fragment testing can be performed with all munitions meeting STANAG standards and at high test velocities. With a few exceptions original manufacturer ammunition is used.

Surrogate Manufacturing

Plasan can test munitions which are virtually unavailable in the open market. For some types of ammunition, we have developed tools that enable the manufacturing of surrogates which are fully compatible with the originals. This ensures availability of even the rarest types of ammunition.

Measurement and Analysis

Our lab is equipped with state-of-the-art equipment for measurement and analysis of each test.

Speed measurement Infrared Equipment

Velocities are determined using an Oehler 35P chronograph model 57.

Prototypa LS04 Ballistic Measurement System

Laser-based measurement including WiFi wireless data transmission.

Prototypa DRS-1 Doppler Radar System

High Speed Video Analysis

High speed images can be obtained for analysis. Images can be captured at highest rates, and are used for accurate velocity measurement of parameters like yaw angles.

X-Ray Photography

2-axis X-Ray camera obtains images that neutralize the flash of the impact allowing accurate measurements of parameters like yaw angles.

Blast Testing

Plasan has an extensive experience with vehicle exploitation testing which is conducted at remote outdoor ranges. We hold year- round blast tests.

Our team is experienced in planning and executing a wide variety of arena type high explosive blast tests of up to 50kg and higher if requested by the customer.

Plasan is experienced in using dummies with data collection, as well as event photography and filming. Our testing equipment includes four *H III ATD dummy types and four high speed cameras for accurate measurement and analysis. The blast test is also obtained from the vehicle interior by using high speed cameras.
Environmental Conditions

Equipment includes:

- Humidity Cell: Temperature Range: -96 ºc- +260 ºc, Humidity up to 90%.
- 2 Freezers: Down to -50 ºc, -45ºc to -85 ºc.
- 3 Ovens: Up to 200 ºc.

Certifications

ISO 9001:2008  Complies with IDF standards
Plasan ISO/IEC 17025: 2005 accredited ballistic laboratory

Contact

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