# STANAG 4569 TEST CERTIFICATION

ARMOURED VEHICLE PROTECTION AGAINST PROJECTILES. MINES AND IED'S





TNO is an independent research and development organisation for both the international defence industry and governments. Furthermore its independence is why TNO's high priority is to treat all its work with the best protection of industrial or otherwise classified information.

When it comes to NATO standards, TNO has an active role both in the development of standards as well as in test certification. This folder describes the service that TNO offers to help ensure good protection of armoured vehicles for all levels of STANAG 4569.

The testing procedures of STANAG 4569 are documented in the AEP-55, where AEP stands for Allied Engineering Publications. AEP-55 consists at this time of three volumes containing testing procedures for protection against:

- 1. projectiles
- 2. grenade and mines
- 3. IED's

With regard to the testing TNO can guarantee quick service and availability of threats required for testing. Furthermore, TNO is able to perform tests in their own Laboratory for Ballistics Research, at a Dutch Army Proving Ground or at foreign test sites. A TNO testing team is able to perform their tasks at any place in the world.



TNO has expertise in threat mechanisms and armour concepts for both components as well as for full scale vehicles. For this reason TNO is often consulted by its clients in an early stage to ensure successful test certification. As a part of or in relation to test certification TNO offers services on the following levels:

- Panel testing (Main Area). In one of TNO's ballistic ranges panels can be tested against threats ranging from 5.56 mm up to 30 mm, against fragments (Fragment Simulating Projectiles) and Explosively Formed Projectiles (EFPs).
- 2. Structural Weak Area testing of hull (sections)
- 3. Full scale testing of vehicles

For mine and IED testing TNO regularly performs qualification reviews or design reviews. For both hull section and full scale vehicle testing TNO has its own team to perform tests at any suitable location with all diagnostic equipment necessary (e.g. crash dummies, hispeed video). Of course here TNO also has required threats available, ranging from anti-personnel mines, anti-tank mines (6 – 10 kg. TNT equivalent) to IED's (for fragmenting charges, blast charges or EFP's).

















### CONTACT

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#### MORE INFORMATION

Please visit our website www.tno.nl/ballistics for an overview of all our services

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#### TNO

TNO is an independent innovation organisation. TNO connects people and knowledge to create innovations that sustainably boost the competitive strength of industry and the welfare of society.

TNO focuses its efforts on seven themes including Defence, Safety and Security: TNO works on a safe and secure society by creating innovations for people working in defence organisations, the police, emergency services and industry.