



# INSENSITIVE MUNITIONS

Frequently Asked Questions

**IMEMG**

Inensitive Munitions  
European Manufacturers Group

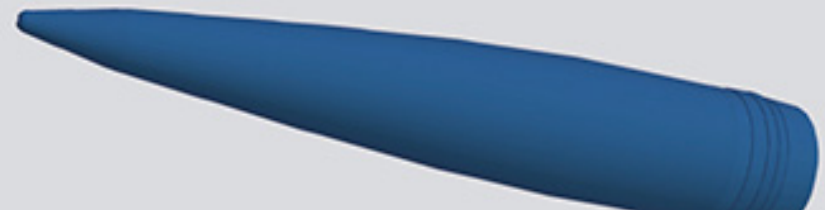


# 1

INSENSITIVE MUNITIONS (IM/MURAT)

## What are they?

NATO defines Insensitive Munitions as: "Munitions which reliably fulfil specified performance, readiness and operational requirements on demand, but which minimize the probability of inadvertent initiation and violence of subsequent collateral damage to the weapon platform (including personnel) when subjected to unplanned stimuli."



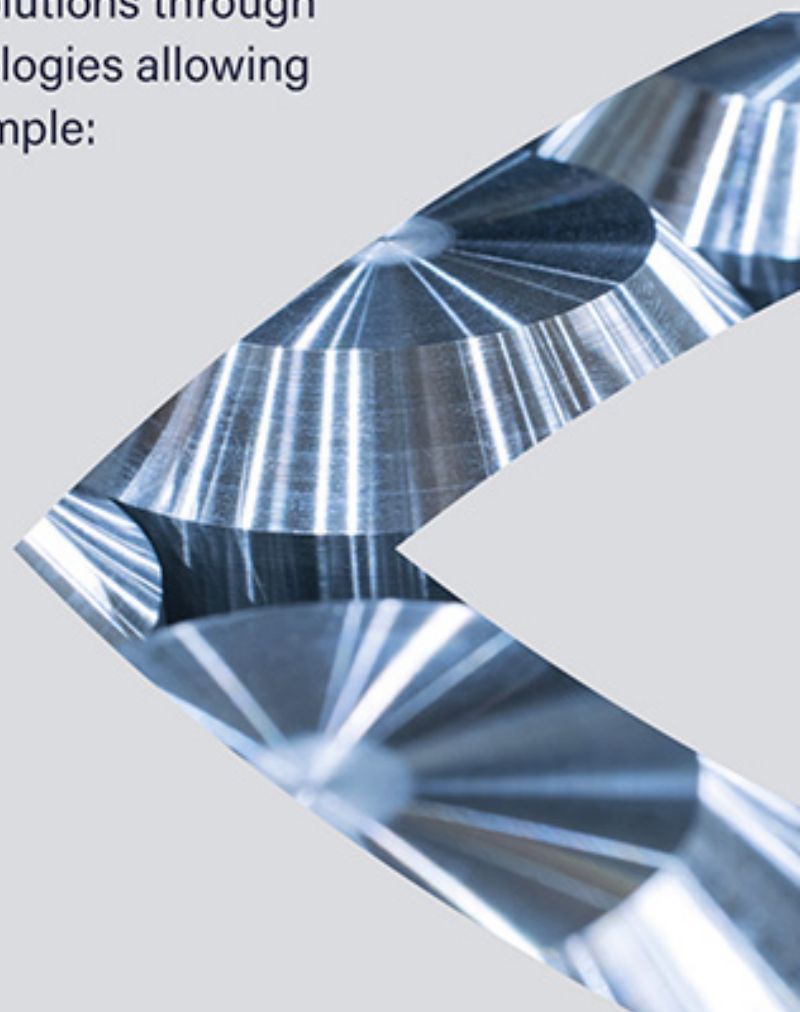
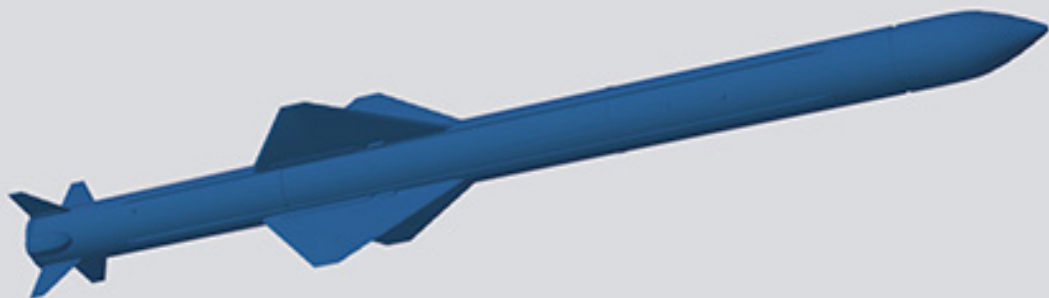
# 2

## INSENSITIVE MUNITIONS

# How are they technically achieved?

IMEMG manufacturers have developed IM solutions through the combination of multiple advanced technologies allowing them to mitigate violent reactions, by for example:

- > new types of energetic materials based on low-sensitivity energetic molecules
- > optimized system architectures
- > new types of logistic packs





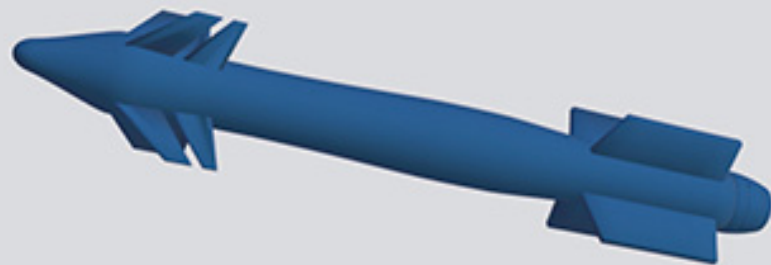
# 3

## INSENSITIVE MUNITIONS

# How are they assessed?

IM characterization is achieved by all IMEMG manufacturers in the same way, by testing ammunition in accordance with STANAG 4439 (NATO regulation) "Policy for introduction and assessment of Insensitive Munitions" and other regulations.

Six tests are used to simulate the potential threats which an ammunition could encounter during its whole lifecycle and the level of reaction is assessed (from no reaction to detonation). Depending on the IM requirements, STANAG or IM signature, ammunition is considered IM if the tests confirm a pre-defined level of insensitiveness.





## INSENSITIVE MUNITIONS

# 4

# Do they perform as well as conventional munitions?

### Yes.

IMEMG member companies deliver ammunition reaching the level of operational performance required by their users, while offering safer ammunition through IM solutions.

Thanks to more than thirty years of Research & Development, IMEMG

member companies are generating IM solutions that meet performance levels (lethality, range, etc.) similar to conventional ammunition, reduce hazards to soldiers and improve survivability of platforms.

**IM do not detonate in a fire, or under bullet or fragment impact.  
Mass explosions are avoided.**

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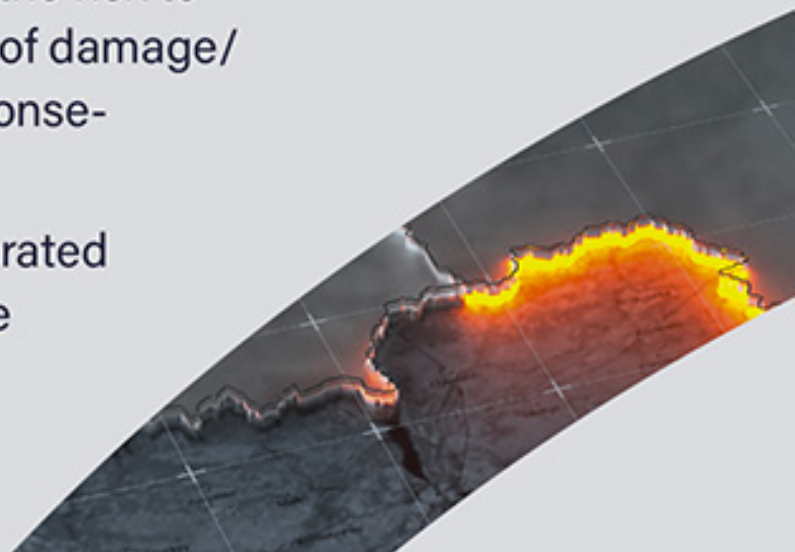


# 5

## INSENSITIVE MUNITIONS

# Are they more expensive than conventional ammunition?

- > Insensitive Munitions are currently produced by IMEMG manufacturers in mass production, allowing them to achieve the best compromise between safety, true lifecycle costs and performance. This is due to the reduced costs associated with storage, transport, and reduced safety and security requirements, etc.
- > Insensitive Munitions are contributing to minimize the risk to personnel life/injuries, as well as reducing the risk of damage/loss of the platform and any potential associated consequences, including at the political level.
- > For new procurements, IM features can be incorporated into new designs from the outset in a cost-effective manner.



# 6

## INSENSITIVE MUNITIONS

# What are their benefits?

### **Increased safety for Armed Forces**

The use of IM ammunition is saving lives and platforms. It has drastically reduced the risk of detonation or mass explosion during storage, transport and operational use.

### **Reduced logistic burden**

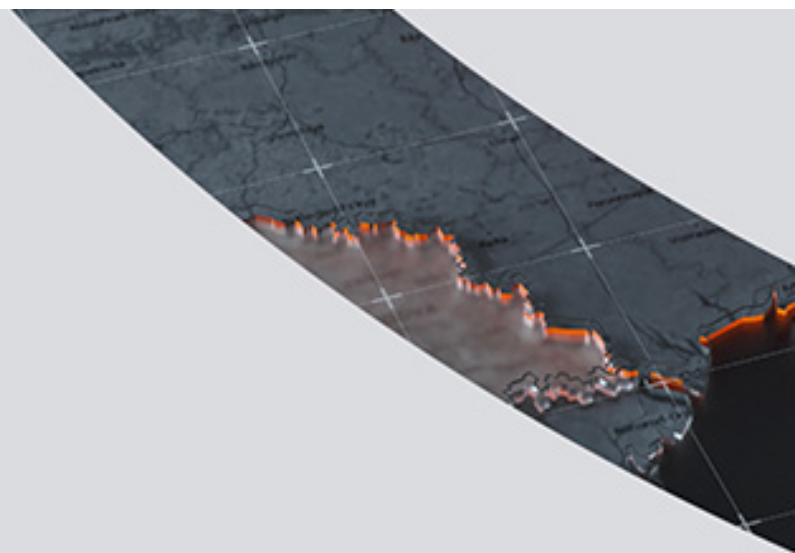
Due to these characteristics, IM can be stored with a significant footprint reduction and can be transported and used with reduced security and safety requirements.

### **Increased interoperability**

IM is a joint requirement of NATO countries and an increased number of non-NATO countries. IM acquisition facilitates safer joint operations.

### **Increased survivability of the ammunition**

Lower vulnerability to enemy and unplanned actions.





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<https://imemg.org>