



# **MKKN**

LARGE CALIBER AMMUNITION

## **155 MM SERIES**

# COMPANY PRESENTATION



**MKKN for STEEL INDUSTRIES LLC** represents excellence in the Saudi defense industry, being the first organization in the Kingdom to achieve the ambitious objectives of Vision 2030 in the military ammunition sector. With a constant commitment to technological innovation and superior quality, MKKN positions itself as a reliable strategic partner for global armed forces.

## STRATEGIC CAPABILITIES

- **Specialized production** of metallic components for artillery ammunition
- **State-of-the-art facilities** compliant with the most stringent European regulations for sensitive materials
- **Total quality control** with certified traceability systems at every production phase
- **Complete regulatory compliance** with international arms control regimes

## CERTIFIED EXCELLENCE

Our 155 mm ammunition has obtained the most prestigious international certifications:

- **MIL-DTL-14824C**: U.S. military technical specification
- **STANAG 4224**: NATO standard for artillery projectiles

These certifications confirm that every MKKN product meets the highest global standards of quality, operational reliability, and safety, and is approved for use by NATO forces and international military organizations.

## INNOVATION AND SUSTAINABILITY

MKKN continuously invests in:

- CNC technologies and automated systems for certified precision
- Low environmental impact production processes
- Recycling and recovery procedures for production waste
- Development of local expertise in the Saudi defense sector

*MKKN LLC: Pioneers in defense excellence,  
committed to protecting your future with  
certified quality ammunition and  
unmatched standards.*



# M2107 HE

## High Explosive Artillery Ammunition Shells for 155 mm Howitzer

MKKN manufactures complete steel bodies for the 155 mm High Explosive (HE) M107 type howitzer munition used for blast and fragmentation effects. The M107 type is one of the most widely used artillery projectiles. It is filled with TNT, RDX or a mixture of both and is compatible with standard NATO fuses. The hollow forged body is made in quenched and annealed steel with a gilded metal driving band, compatible with all current 155 mm howitzer. The rotating band is protected by a polymeric ring (to be removed before firing), and a lifting plug is installed on the tip of the body to prevent possible damages to the fuse threads during handling and storage operations.



### system characteristics

Type	High Explosive (HE)
Caliber	155mm
Projectile Length (without fuse)	604 mm (Suitable to M107)
Projectile Weight (without fuse)	43.5 kg (Suitable to M107)
Fuse Cavity	2"-12UNS-1A / IAW STANAG 2916
Explosive Type	TNT / Composition B
Explosive Mass	7.17 kg
Color	Green & Yellow Markings (NATO AOP-2)
Packaging	Wooden Pallet of 8 Projectiles (MIL-STD-2073-1)
Packaging Dimensions and Weight	900 x 600 x 738 mm (approx. 350 kg)

### System Performances

(from FH70 Howitzer using a M4A2/DM72 charge)

Nominal Muzzle Velocity	680 ÷ 690 m/s
Nominal Spin Rate	66,800 ÷ 78,700 rpm
Nominal Chamber Pressure	1,780 ÷ 2,170 bar
Firing Temperature Range	+63 °C ÷ -46 °C
Storage Temperature Range	+71 °C ÷ -51 °C

### System Qualifications

#### MIL-DTL-14824C (AR)

Detail specification, Projectile 155 mm, HE, metal parts assembly.

#### STANAG 4224 (Ed. 4)

Large caliber artillery and naval gun ammunition greater than 40 mm, safety and suitability for service evaluation.





# M2107 INERT

High Explosive Artillery Ammunition Shells for 155 mm Howitzer

MKKN manufactures inert 155 mm M2107-type howitzer bodies for training, handling, and storage simulation. This widely used artillery round is fully demilitarized — no explosive filler — and safe for non-firing use. Compatible with standard NATO fuses for procedural training. Forged from quenched and annealed steel, it features a gilded metal driving band for full compatibility with current 155 mm howitzers. The rotating band is protected by a removable polymeric ring (remove before handling or simulated firing), and a lifting plug on the nose prevents damage to fuse threads during transport and storage. Designed exclusively for non-combat applications: logistics training, safety drills, and ceremonial display.



## System Characteristics

Type	Inert
Caliber	155mm
Projectile Length (without fuse)	604 mm (Suitable to M107)
Projectile Weight (without fuse)	43.5 kg (Suitable to M107)
Fuse Cavity	2"-12UNS-1A / IAW STANAG 2916
Explosive Type	Inert
Explosive Mass	7.17 kg (density 1600kg/m3)
Color	Blue & White Markings (NATO AOP-2)
Packaging	Wooden Pallet of 8 Projectiles (MIL-STD-2073-1)
Packaging Dimensions and Weight	900 x 600 x 738 mm (approx. 305 kg)

## System Performances

(from FH70 Howitzer using a M4A2/DM72 charge)

Nominal Muzzle Velocity	680 ÷ 690 m/s
Nominal Spin Rate	66,800 ÷ 78,700 rpm
Nominal Chamber Pressure	1,780 ÷ 2,170 bar
Firing Temperature Range	+63 °C ÷ -46 °C
Storage Temperature Range	+71 °C ÷ -51 °C

## System Qualifications

**MIL-DTL-14824C (AR)**

Detail specification, Projectile 155 mm, HE, metal parts assembly.

**STANAG 4224 (Ed. 4)**

Large caliber artillery and naval gun ammunition greater than 40 mm, safety and suitability for service evaluation.





# MASS2 HE-BT

## High Explosive Artillery Ammunition Shells for 155 mm Howitzer

MKKN manufactures complete steel bodies for the 155 mm High Explosive (HE) MASS2 type howitzer munition used for blast and fragmentation effects. The MASS2 is a modern evolution of the widely used M107 projectile family. It is filled with TNT, RDX or a mixture of both and is compatible with standard NATO fuses. The hollow forged body is made in quenched and annealed steel with a gilded metal driving band, compatible with all current 155 mm howitzer. The rotating band is protected by a polymeric ring (to be removed before firing), and a lifting plug is installed on the tip of the body to prevent possible damages to the fuse threads during handling and storage operations.



### system characteristics

Type	High Explosive (HE)
Caliber	155mm
Projectile Length (without fuse)	783 mm (Suitable to M2000 Assegai)
Projectile Weight (without fuse)	43.5 kg (Suitable to M2000 Assegai)
Fuse Cavity	2"-12UNS-1A / IAW STANAG 2916
Explosive Type	TNT / Composition B
Explosive Mass	TNT 8,3 kg / Comp B 9 kg
Color	Green & Yellow Markings (NATO AOP-2)
Packaging	Wooden Pallet of 8 Projectiles (MIL-STD-2073-1)
Packaging Dimensions and Weight	765 x 360 x 973 mm (approx. 350 kg)

### System Performances

(from FH70 Howitzer using a M4A2/DM72 charge)

Nominal Muzzle Velocity	810 ÷ 930 m/s
Nominal Spin Rate	66,800 ÷ 78,700 rpm
Nominal Chamber Pressure	1,780 ÷ 2,170 bar
Firing Temperature Range	+63 °C ÷ -46 °C
Storage Temperature Range	+71 °C ÷ -51 °C

### System Qualifications

#### STANAG 4224 (Ed. 4)

Large caliber artillery and naval gun ammunition greater than 40 mm, safety and suitability for service evaluation.





# MASS2 HE-BB

## High Explosive Artillery Ammunition Shells for 155 mm Howitzer

MKKN manufactures complete steel bodies for the 155 mm High Explosive (HE) MASS2 type howitzer munition, enhanced with a base bleed system to extend range while delivering blast and fragmentation effects.

The MASS2 is a modern evolution of the widely used M107 projectile family. It is filled with TNT, RDX, or a mixture of both and is compatible with standard NATO fuses. The hollow forged body is made of quenched and annealed steel, fitted with a gilded metal driving band for compatibility with all current 155 mm howitzers. The rotating band is protected by a polymeric ring (to be removed before firing), and a lifting plug is installed on the tip to prevent damage to the fuse threads during handling and storage.



### system characteristics

Type	High Explosive (HE)
Caliber	155mm
Projectile Length (without fuse)	783 mm (Suitable to M2000 Assegai)
Projectile Weight (without fuse)	43.5 kg (Suitable to M2000 Assegai)
Fuse Cavity	2"-12UNS-1A / IAW STANAG 2916
Explosive Type	TNT / Composition B
Explosive Mass	TNT 8,3 kg / Comp B 9 kg
Color	Green & Yellow Markings (NATO AOP-2)
Packaging	Wooden Pallet of 8 Projectiles (MIL-STD-2073-1)
Packaging Dimensions and Weight	765 x 360 x 973 mm (approx. 350 kg)

### System Performances

(from FH70 Howitzer using a M4A2/DM72 charge)

Nominal Muzzle Velocity	830 ÷ 950 m/s
Nominal Spin Rate	66,800 ÷ 78,700 rpm
Nominal Chamber Pressure	1,780 ÷ 2,170 bar
Firing Temperature Range	+63 °C ÷ -46 °C
Storage Temperature Range	+71 °C ÷ -51 °C

### System Qualifications

**STANAG 4224 (Ed. 4)**

Large caliber artillery and naval gun ammunition greater than 40 mm, safety and suitability for service evaluation.





# MASS2 INERT

## High Explosive Artillery Ammunition Shells for 155 mm Howitzer

MKKN manufactures inert steel bodies for the 155 mm High Explosive (HE) MASS2 type howitzer munition, designed for training, handling, and storage simulation.

This inert variant replicates the form, fit, and weight of the live MASS2 round but contains no explosive filler—fully demilitarized and safe for non-firing applications. It remains compatible with standard NATO fuses for procedural training.

The hollow forged body is made of quenched and annealed steel, fitted with a gilded metal driving band, fully compatible with all current 155 mm howitzers. This inert round is intended exclusively for non-combat use, including logistics training, safety drills, and ceremonial display.



### system characteristics

Type	High Explosive (HE)
Caliber	155mm
Projectile Length (without fuse)	783 mm (Suitable to M2000 Assegai)
Projectile Weight (without fuse)	43.5 kg (Suitable to M2000 Assegai)
Fuse Cavity	2"-12UNS-1A / IAW STANAG 2916
Explosive Type	Inert
Explosive Mass	Inert 11,3 kg (density 1600 kg/m3)
Color	Blue & White Markings (NATO AOP-2)
Packaging	Wooden Pallet of 8 Projectiles (MIL-STD-2073-1)
Packaging Dimensions and Weight	900 x 600 x 973 mm (approx. 305 kg)

### System Performances

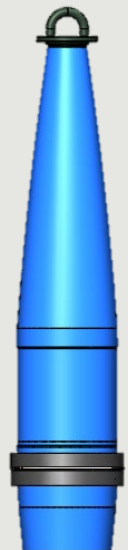
(from FH70 Howitzer using a M4A2/DM72 charge)

810 ÷ 930 m/s	810 ÷ 930 m/s
66,800 ÷ 78,700 rpm	66,800 ÷ 78,700 rpm
1,780 ÷ 2,170 bar	1,780 ÷ 2,170 bar
+63 °C ÷ -46 °C	+63 °C ÷ -46 °C
+71 °C ÷ -51 °C	+71 °C ÷ -51 °C

### System Qualifications

#### STANAG 4224 (Ed. 4)

Large caliber artillery and naval gun ammunition greater than 40 mm, safety and suitability for service evaluation.





# L215 HE-BT

## High Explosive Artillery Ammunition Shells for 155 mm Howitzer

MKKN manufacture steel bodies for the 155 mm High Explosive (HE) MKK151 howitzer munition used for blast and fragmentation effects. Originally developed for British artillery systems, the suitable to L15 is now used internationally to provide high reliability, accuracy and power in long-range supporting fire. The hollow forged body is made in quenched and annealed steel with a gilded metal driving band, compatible with all current 155 mm howitzer. The rotating band is protected by a polymeric ring (to be removed before firing), and a lifting plug is installed on the tip of the body to prevent possible damages to the fuse threads during handling and storage operations.



### System Characteristics

Type	High Explosive (HE)
Caliber	155mm
Projectile Length (without fuse)	779 mm (suitable to L15)
Projectile Weight (without fuse)	43.7 kg (Suitable to L15)
Fuse Cavity	2"-12UNS-1A / IAW STANAG 2916
Explosive Type	TNT / Composition B
Explosive Mass	TNT 11,3 kg / Comp B 12 kg
Color	Green & Yellow Markings (NATO AOP-2)
Packaging	Wooden Pallet of 8 Projectiles (MIL-STD-2073-1)
Packaging Dimensions and Weight	900 x 600 x 866 mm (approx. 305 kg)

### System Performances

(from FH70 Howitzer using a M4A2/DM72 charge)

Nominal Muzzle Velocity	800 ÷ 810 m/s
Nominal Spin Rate	66,800 ÷ 78,700 rpm
Nominal Chamber Pressure	1,780 ÷ 2,170 bar
Firing Temperature Range	+63 °C ÷ -46 °C
Storage Temperature Range	+71 °C ÷ -51 °C

### System Qualifications

#### STANAG 4224 (Ed. 4)

Large caliber artillery and naval gun ammunition greater than 40 mm, safety and suitability for service evaluation.





# L215 HE-BB

## High Explosive Artillery Ammunition Shells for 155 mm Howitzer

MKKN manufactures steel bodies for the 155 mm High Explosive (HE) MKK151 Base Bleed howitzer munition, designed to enhance long-range artillery performance while maintaining blast and fragmentation effectiveness. Originally developed for British artillery systems and compatible with L15 standards, this version is widely used internationally. The hollow forged body is produced from quenched and annealed steel and fitted with a gilded metal driving band, compatible with all current 155 mm howitzers. The Base Bleed unit is integrated in the rear of the projectile body. A polymeric ring protects the rotating band (to be removed before firing), and a lifting plug is installed on the nose to protect fuze threads during handling and storage.



### System Characteristics

Type	High Explosive (HE)
Caliber	155mm
Projectile Length (without fuse)	779 mm (suitable to L15)
Projectile Weight (without fuse)	43.7 kg (Suitable to L15)
Fuse Cavity	2"-12UNS-1A / IAW STANAG 2916
Explosive Type	TNT / Composition B
Explosive Mass	TNT 11,3 kg / Comp B 12 kg
Color	Green & Yellow Markings (NATO AOP-2)
Packaging	Wooden Pallet of 8 Projectiles (MIL-STD-2073-1)
Packaging Dimensions and Weight	900 x 600 x 866 mm (approx. 305 kg)

### System Performances

(from FH70 Howitzer using a M4A2/DM72 charge)

Nominal Muzzle Velocity	800 ÷ 810 m/s
Nominal Spin Rate	66,800 ÷ 78,700 rpm
Nominal Chamber Pressure	1,780 ÷ 2,170 bar
Firing Temperature Range	+63 °C ÷ -46 °C
Storage Temperature Range	+71 °C ÷ -51 °C

### System Qualifications

#### STANAG 4224 (Ed. 4)

Large caliber artillery and naval gun ammunition greater than 40 mm, safety and suitability for service evaluation.





# L215 INERT

## High Explosive Artillery Ammunition Shells for 155 mm Howitzer

MKKN manufactures steel bodies for the 155 mm Inert MKK151 howitzer munition, intended for training, handling, ballistic matching, and logistic purposes. Developed in accordance with British artillery standards and compatible with L15, the inert version replicates the external geometry, mass, and interfaces of the service projectile without explosive content. The hollow forged body is made of quenched and annealed steel and equipped with a gilded metal driving band, ensuring full compatibility with all current 155 mm howitzers. The rotating band is protected by a removable polymeric ring, and a lifting plug is fitted at the nose to prevent damage to fuze threads during transport, handling, and storage.



### System Characteristics

Type	Inert
Caliber	155mm
Projectile Length (without fuse)	779 mm (suitable to L15)
Projectile Weight (without fuse)	43.7 kg (Suitable to L15)
Fuse Cavity	2"-12UNS-1A / IAW STANAG 2916
Explosive Type	TNT / Composition B
Explosive Mass	Inert 11,3 kg (density 1600 kg/m3)
Color	Green & Yellow Markings (NATO AOP-2)
Packaging	Wooden Pallet of 8 Projectiles (MIL-STD-2073-1)
Packaging Dimensions and Weight	900 x 600 x 866 mm (approx. 305 kg)

### System Performances

(from FH70 Howitzer using a M4A2/DM72 charge)

Nominal Muzzle Velocity	800 ÷ 810 m/s
Nominal Spin Rate	66,800 ÷ 78,700 rpm
Nominal Chamber Pressure	1,780 ÷ 2,170 bar
Firing Temperature Range	+63 °C ÷ -46 °C
Storage Temperature Range	+71 °C ÷ -51 °C

### System Qualifications

#### STANAG 4224 (Ed. 4)

Large caliber artillery and naval gun ammunition greater than 40 mm, safety and suitability for service evaluation.



# CONTACTS & DETAILS



**Excellence in Defence: NATO-Qualified Ammunition**

## WHERE WE ARE

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-  [www.mkkn.com.sa](http://www.mkkn.com.sa)

## BUSINESS HOURS

Sunday – Thursday: 8:00 AM – 5:00 PM  
(GMT+3)

## CERTIFICATIONS & COMPLIANCE

-  **MIL-DTL-14824C** – U.S. Military Technical Specification
-  **STANAG 4224** – NATO Alliance Standard
-  **ISO 9001:2015 - 14001:2015 - 45001:2018** – ISO Certifications

## REGISTRATION DETAILS

Commercial Registration: 1010641527  
Tax Identification Number - VAT No: 310604581400003

## GLOBAL PARTNERSHIPS

Strategic collaborations with leading defense operators across:

 Europe |  North America |  Middle East |  Asia-Pacific

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## MKKN LLC – Pioneering Defence Excellence

*Certified Quality | Global Standards | Saudi Vision 2030 Leadership*

*"Delivering NATO-qualified ammunition solutions that meet the highest standards of reliability, precision, and operational excellence for armed forces worldwide."*

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