



# **PRODUCT CATALOG**

## **DESTRUCTIVE MORTAR MINES**

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# **ELMECH SINTERMAK**

Elmech SinterMak d.o.o. from Croatia, Zabok, is a company registered for the production, overhaul and trade of military equipment and weapons, and its storage. With more than 30 years experience, we were involved in the development and production of weapons for Croatian armed forces during the patriotic war and continued with international collaboration in arms development, trade and production once the war ended.

# M-73

## 60 mm DESTRUCTIVE MORTAR MINE

Intended to provide fire support on short ranges, for making passages through minefields and defence wirings.



## TECHNICAL CHARACTERISTICS

Length of shell with fuze .....	291 mm
Weight of shell with fuze .....	1350 g

## CHARGE

Type .....	TNT
Weight .....	220 g
Powder charges .....	0+4

## FUZE

Type .....	UTM68 P1
Safety .....	8 m

Reliable function within temperature range  
-30°C and +50°C.

Mine is safe during transportation and handling.

## BALLISTIC CHARACTERISTICS

When using 60 mm M57, with barrel length 720 mm

Maximum range (0+4) .....	2550 m
Minimum range (0) .....	94 m
Maximum pressure operating in mortar .....	414 bar
Lethal effect radius (1 penetration/m <sup>2</sup> ) .....	10 m

## PACKAGING

Wooden crate contains 12 plastic boxes, each containing one complete mine.

Crate dimensions .....	50x40x20 cm
Total weight .....	29 kg
Total volume .....	0,042 m <sup>3</sup>

# **M-72/M-74**

**81/82 mm DESTRUCTIVE MORTAR MINE**

Intended to provide fire support on short ranges, for making passages through minefields and defence wirings and demolishing fortifications.



### **TECHNICAL CHARACTERISTICS**

Length of shell with fuze .....	375 mm
Weight of shell with fuze .....	3050 g

### **CHARGE**

Type .....	TNT
Weight .....	680 g
Powder charges .....	0+6

### **FUZE**

Type .....	UTM68 P1
Safety .....	8 m

Reliable function within temperature range  
-30°C and +50°C.  
Mine is safe during transportation and handling.

### **BALLISTIC CHARACTERISTICS**

When using 81/82 mm M69 B-D, with barrel length 1450 mm

Maximum range (0+6) .....	5070 m
Minimum range (0) .....	91 m
Maximum pressure operating in mortar .....	647 bar
Lethal effect radius (1 penetration/m <sup>2</sup> ) .....	14 m

### **PACKAGING**

Wooden crate contains 5 plastic boxes, each containing one complete mine.

Crate dimensions .....	54x44x16 cm
Total weight .....	29 kg
Total volume .....	0,038 m <sup>3</sup>

# **M-92/M62P3**

**120 mm DESTRUCTIVE MORTAR MINE**

Intended to provide fire support on short ranges, for making passages through minefields and defence wirings and demolishing fortifications.



## TECHNICAL CHARACTERISTICS

Length of shell with fuze .....	606 mm
Weight of shell with fuze .....	12,6 kg

## CHARGE

Type .....	RDX or TNT
Weight .....	2,45 kg
Powder charges .....	0+6

## FUZE

Type .....	UTU M78
Safety .....	50 m

Reliable function within temperature range  
-30°C and +50°C.

Mine is safe during transportation and handling.

## BALLISTIC CHARACTERISTICS

When using 120 mm M75, with barrel length 1500 mm

Maximum range (0+6) .....	6500 m
Minimum range (0) .....	255 m
Maximum pressure operating in mortar .....	961 bar
Lethal effect radius (1 penetration/m <sup>2</sup> ) .....	20 m

## PACKAGING

Wooden crate contains 2 plastic boxes, each containing one complete mine.

Crate dimensions .....	71x35x18 cm
Total weight .....	38 kg
Total volume .....	0,045 m <sup>3</sup>

# M-95

## 120 mm DESTRUCTIVE LONG RANGE MORTAR MINE

Intended to provide fire support on short ranges, for making passages through minefields and defence wirings and demolishing fortifications.



### **TECHNICAL CHARACTERISTICS**

Lenght of shell with fuze ..... 14,70 kg  
Weight of shell with fuze ..... 775 mm

### **FUZE**

Type ..... UTU M78

### **BALLISTIC CHARACTERISTICS\***

Maximum range ..... 9200 mm

Maximum average pressure ..... 1250 bar

\*Using 120 mm M95, with barrel  
lenght 1900 mm.

Reliable function within temperature range  
-30°C and +50°C.

Mine is safe during transportation and handling.

### **PACKAGING**

Wooden crate contains two mortar bombs, each in hermetically sealed carton tube.

Crate dimensions ..... 885x315x190 mm

Total weight ..... 43 kg

Total volume ..... 0,053 m<sup>3</sup>

# M1

## **105 mm HIGH EXPLOSIVE ROUND**

Intended to destroy fortifications, sheltered positions and making passages through minefields and wire obstacles.



## TECHNICAL CHARACTERISTICS

Projectile length with fuze .....	495 mm
Projectile weight with fuze .....	14,95 kg
Explosive charge weight .....	2,2 kg
Weight of bullet .....	19,08 kg
Length of bullet .....	692 mm
Calibre .....	105 mm

Maximum working pressure .....	2300 bar
Lethal effect radius .....	20-25 m
(1 penetration/m <sup>2</sup> )	

## BALLISTIC CHARACTERISTICS\*

Initial speed of projectile .....	473 m/s
Maximum range .....	11255 m

\*Using 105 mm M2A1 (M101A1)

## PACKAGING

Wooden crate contains two projectiles.

Reliable function within temperature range -30°C and +50°C.

Projectile is safe during transportation and handling.

# TF-462

**122 mm HIGH EXPLOSIVE ROUND FOR M78**

Intended to destroy fortifications, sheltered positions, light armoured targets and making passages through minefields and wire obstacles.



**TECHNICAL CHARACTERISTICS**

Projectile length with fuze .....	556 mm
Projectile weight with fuze .....	21,76 kg
Explosive charge weight .....	
Weight of bullet .....	8,10 kg
Length of bullet .....	447 mm
Calibre .....	122 mm
Maximum working pressure .....	2450 bar
Lethal effect radius .....	25-30 m
(1 penetration/m <sup>2</sup> )	

**BALLISTIC CHARACTERISTICS\***

Initial speed of projectile .....	690 m/s
Maximum range .....	15300 m

\*Using 122 mm Howitzer D30, 2S3

**PACKAGING**

Wooden crate contains two projectiles.

Crate dimensions .....	1180x420x260 mm
Total weight .....	80 kg
Total volume .....	0,13 m <sup>3</sup>

Reliable function within temperature range -30°C and +50°C.  
 Projectile is safe during transportation and handling.

# M76

## **122 mm HE EXTENDED RANGE ROUND FOR M78**

Intended to destroy fortifications, sheltered positions, light armoured targets and making passages through minefields and wire obstacles.



### TECHNICAL CHARACTERISTICS

Projectile length with fuze .....	596 mm
Projectile weight with fuze .....	21,76 kg
Explosive charge weight .....	
Weight of bullet .....	8,30 kg
Length of bullet .....	447 mm
Calibre .....	122 mm
Maximum working pressure .....	2550 bar
Lethal effect radius .....	25-30 m
(1 penetration/m <sup>2</sup> )	

### BALLISTIC CHARACTERISTICS\*

Initial speed of projectile .....	710 m/s
Maximum range .....	17300 m

\*Using 122 mm Howitzer D30, 2S3

### PACKAGING

Wooden crate contains two projectiles.

Crate dimensions .....	1180x420x260 mm
Total weight .....	81 kg
Total volume .....	0,13 m <sup>3</sup>

Reliable function within temperature range -30°C and +50°C.  
 Projectile is safe during transportation and handling.

# **M107/M101**

**155 mm HIGH EXPLOSIVE ROUND**

Intended to destroy fortifications, sheltered positions, light armoured targets and making passages through minefields and wire obstacles.



### TECHNICAL CHARACTERISTICS

Projectile length without fuze .....	605 mm
Projectile weight without fuze .....	43 kg
Explosive charge weight .....	6,9 kg
Calibre .....	155 mm
Fuze .....	M 557
Number of fragments .....	aprox. 2000

### BALLISTIC CHARACTERISTICS\*

Initial speed of projectile .....	564 m/s
Maximum range .....	14950 m

\*Using 155 mm Howitzer M114, M44

### PACKAGING

Wooden pallet contains 8 projectiles

Pallet dimensions ..... 1200x800x500 mm

Reliable function within temperature range -30°C and +50°C.  
Projectile is safe during transportation and handling.



**M75**

HAND GRENADE



## TECHNICAL CHARACTERISTICS

Dimensions with fuze .....	58x89 mm
Weight .....	350 g
Explosive charge .....	36 g
Grenade body .....	2,4-2,9 mm

Pulling force .....	7-18 daN
Safety angle of fuze lever .....	35°
Delay time .....	3 to 4 sec

Reliable function within temperature range  
-30°C and +60°C.

Hand grenade is safe for any type of  
transportation and handling.

Storage period is 15 years.

## PACKAGING

Sixty (60) hand grenades are packed in a wooden crate.

Wooden crate dimensions .....	514x396x270 mm
Total weight .....	28 kg
Total volume .....	0,055 m <sup>3</sup>