

ABOUT US

At JBM (Joint Ballistics and Mechanics), we are dedicated to safeguarding freedom through our specialization in the reselling of high-quality weapons, ballistics, and ammunition. Founded on the principles of integrity and excellence, we strive to provide our customers with the best products available to ensure their safety and security, both personally and nationally. Our extensive range of products is meticulously selected to meet the highest standards of performance and reliability.

Our team consists of knowledgeable professionals who are passionate about our mission. We understand the critical importance of what we provide, and we take our responsibility seriously. From personal defense to national security, we offer the tools necessary to protect what matters most. At JBM, our commitment goes beyond just selling products; we aim to build lasting relationships with our customers by offering exceptional service, expert advice, and unwavering support.

Our Values

Freedom: Protecting freedom is at the heart of our mission.

Integrity: We conduct our business with honesty and transparency.

Quality: We offer only the highest quality products.

Customer Commitment: We prioritize exceptional service and support.

Innovation: We embrace advancements to provide cutting-edge solutions.

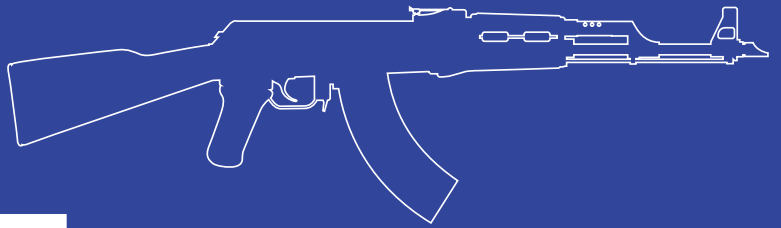
At JBM, our dedication to these values ensures that we remain a trusted partner in the defense and security industry.







ASSAULT RIFLES



Assault rifle is a rifle that uses an intermediate cartridge and a detachable magazine. Assault rifles are currently the standard service rifles in most modern armies. Assault rifles operate by using either propellant gases or blowback forces generated by a fired round to force back the bolt, eject the spent cartridge case, and cock the firing mechanism.

ASSAULT RIFLE M05 E1

Assault rifle M05 E1 belongs to group of new models of assault rifles in caliber 7.62x39 mm. M05E1 is basic model without possibility to attach optical sight mount to the receiver.



ASSAULT RIFLE M05 E2

M05 E2 has dovetail rail on the left side of receiver to attach mount with Picatinny rail. Mount with Picatinny rail can be included in set of rifle on customer's request.



ASSAULT RIFLE M05 E3

M05 E3 has full length Picatinny rail on the receiver cover, polymer stock with easy and reliable mechanism for right side folding, "12 o'clock" and "6 o'clock" Picatinny rails on the handguards.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	WEIGHT OF MAGAZINE	RATE OF FIRE
M05 E1	7.62x39 mm	240 mm	415 mm	4,05 kg	0,35 kg	620 ± 60 rds/min
M05 E2	7.62x39 mm	240 mm	415 mm	4,15 kg	0,35 kg	620 ± 60 rds/min
MO5 E3	7.62x39 mm	240 mm	415 mm	4,25 kg	0,35 kg	620 ± 60 rds/min

ASSAULT RIFLE M05 N1

Assault rifle M05 N1 is basic model of new group of assault rifles in caliber 7.62x51 mm. All excellent characteristics of previous version M77 are kept in this model and many upgraded characteristics are result of modern tactic demands.



ASSAULT RIFLE M05 N2

Assault rifle M05 N2 is model with ambidextrous fire selector and belongs to group of new models of assault rifles in caliber 7.62x51 mm. Automatic and semiautomatic mode.



OPTIONAL PARTS

UNDERBARREL GRENADE LAUNCHER BGP 40x46 mm



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	WEIGHT OF MAGAZINE	RATE OF FIRE
M05 N1	5.56x45 mm	177.8 mm	375 mm	4,20 kg	0,35 kg	600 ± 50 rds/min
M05 N2	7.62x39 mm	240 mm	415 mm	4,17 kg	0,37 kg	620 ± 60 rds/min

ASSAULT RIFLE M21 A

Assault Rifle M21A, in NATO calibre 5.56 x 45 mm, was designed on the basis of Kalashnikov system. It is a gas operated rifle, and locking system is rotating bolt.



ASSAULT RIFLE M21 S

Assault rifle M21S was developed from M21A, with shorter barrel, which created a more compact weapon, suited to the conditions of contemporary combat actions. It is a gas operated weapon, and locking system is rotating bolt.



ASSAULT RIFLE M21 ABS

Assault rifle M21S was developed from M21A, with shorter barrel. Good solutions for the ergonomics, with excellently balanced weight, provide mild recoil and easy control of fire.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	WEIGHT OF MAGAZINE	RATE OF FIRE
M21 A	5.56x45 mm	177.8 mm	460 mm	4,15 kg	0,35 kg	600 ± 50 rds/min
M21 S	5.56x45 mm	177.8 mm	375 mm	4,07 kg	0,35 kg	600 ± 50 rds/min
M21 ABS	5.56x45 mm	177.8 mm	460 mm	4,30 kg	0,35 kg	600 ± 50 rds/min

ASSAULT RIFLE M70 SBS

Models of assault rifles with mark BS have built-in Picatinny rails, in accordance with NATO standard, on the receiver cover and handguards. There are more possibilities for the mounting of various types of optical-electronic devices.



ASSAULT RIFLE M70 B1

Assault rifle designed on the basis of Kalashnikov principle is used by armed forces in the whole world for more than 40 years since it first appeared. It is still very popular, because it confirmed its reliability in all environments.



ASSAULT RIFLE M70 B3

Assault rifle M70 B3 was created by modification of M70 B1, to provide the possibility of mounting of Russian type underbarrel grenade launchers - model BGP 40 mm. Handguards and stock are made of quality beech.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	WEIGHT OF MAGAZINE	RATE OF FIRE
M70 SBS	5.56x45 mm	177.8 mm	375 mm	4,20 kg	0,35 kg	600 ± 50 rds/min
M70 B1	7.62x39 mm	240 mm	415 mm	4,17 kg	0,37 kg	620 ± 60 rds/min
M70 B3	7.62x39 mm	240 mm	415 mm	4,10 kg	0,35 kg	630 ± 60 rds/min

ASSAULT RIFLE M70 AB2

The rifle has long service life and exceptional precision, as the barrel is cold forged. Locking system is designed in such a manner that the rifle cannot fire before it is fully locked, which ensures the safety of the shooter.



ASSAULT RIFLE M70 AB3

Assault rifle M70 AB3 was created by modification of M70 AB2, to provide the possibility of mounting of Russian type underbarrel grenade launchers - model BGP 40 mm.



ASSAULT RIFLE M77

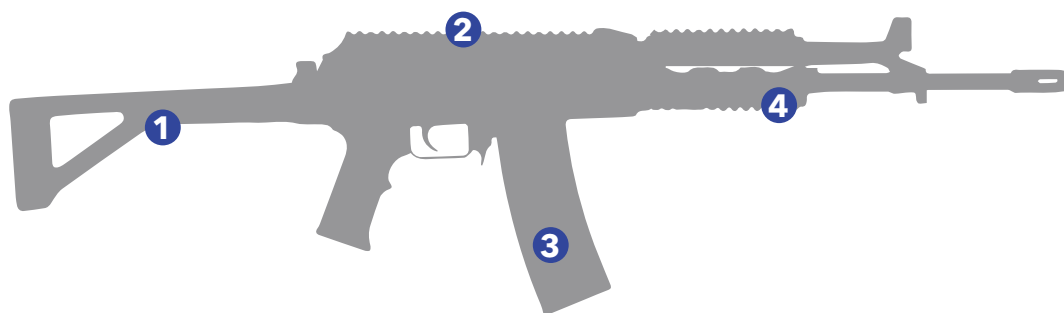
Assault rifle M21S was developed from M21A, with shorter barrel. Good solutions for the ergonomics, with excellently balanced weight, provide mild recoil and easy control of fire.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	WEIGHT OF MAGAZINE	RATE OF FIRE
M70 AB2	7.62x39 mm	240 mm	415 mm	3,97 kg	0,37 kg	620 ± 60 rds/min
M70 AB3	7.62x39 mm	240 mm	415 mm	3,90 kg	0,37 kg	620 ± 60 rds/min
M77	7.62x51 mm	304,8 mm	500 mm	4,35 kg	0,25 kg	620 ± 60 rds/min

OPTIONAL PARTS



1. TELESCOPIC STOCK

On customer's demand, telescopic sight can be assembled to improve rifle precision



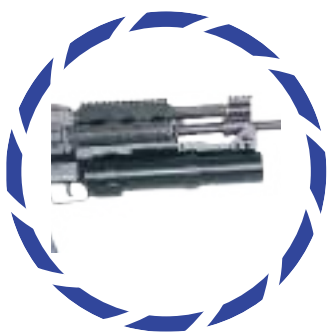
2. OPTICAL SIGHT

On customer's demand, optical sight can be assembled to improve rifle precision



3. POLYMER MAGAZINE

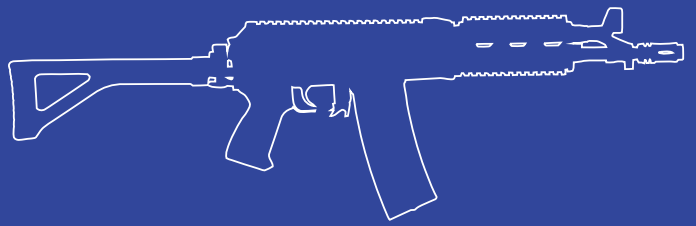
Manufactured from high quality polymer that is as durable as metal counterparts.



4. UNDERBARREL GRENADE LAUNCHER

At customer's request in set can be included Underbarrel grenade launcher BGP 40 mm, and Underbarrel grenade launcher BGP 40x46 mm





SUBMACHINE GUNS

Submachine guns are hand-held small portable automatic weapons for personal defense or short-range combat firing pistol-caliber rounds. Submachine guns are used by military special forces because of their smaller size and because they are easily sound suppressed. Also, SMG's are still widely used by police SWAT teams and other militarized police, because their pistol caliber bullets are less likely to shoot through suspects and walls, causing unintentional injuries to civilians.

SUBMACHINE GUN M21

Submachine gun M21 is a compact weapon, of light weight and it fullfils all requirements of contemporary combat actions. Type of fire is selected by ambidextrous lever, which has three positions: single shot, burst, safe.



SUBMACHINE GUN M21 BS

Integrated Picatinny rails, on the receiver cover and handguards, enable the assembly of various optical-electronic devices. Flash hider masks the position of the shooter.



SUBMACHINE GUN M92

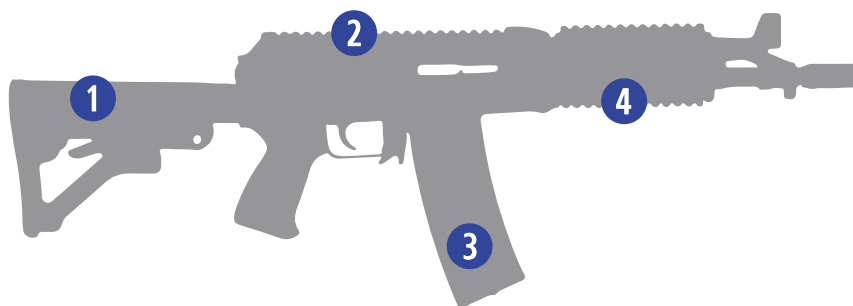
Submachine gun M92 is a light and compact automatic weapon designed on the basis of Kalashnikov principle. It is excellently balanced and with mild recoil, it confirmed its reliability in various environments.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	WEIGHT OF MAGAZINE	RATE OF FIRE
M21	5.56x45 mm	177.8 mm	290 mm	3,91 kg	0,35 kg	600 ± 50 rds/min
M21 BS	5.56x45 mm	177.8 mm	290 mm	4,0 kg	0,35 kg	600 ± 50 rds/min
M92	7,62x39 mm	254 mm	460 mm	3,57 kg	0,35 kg	620 ± 50 rds/min

OPTIONAL PARTS



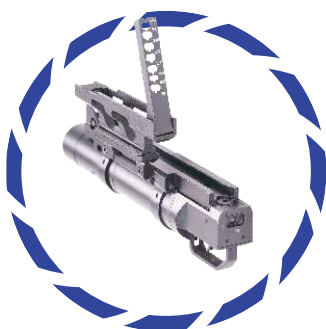
1. TELESCOPIC STOCK

On customer's demand, telescopic sight can be assembled to improve rifle precision



3. POLYMER MAGAZINE

Manufactured from high quality polymer that is as durable as metal counterparts.

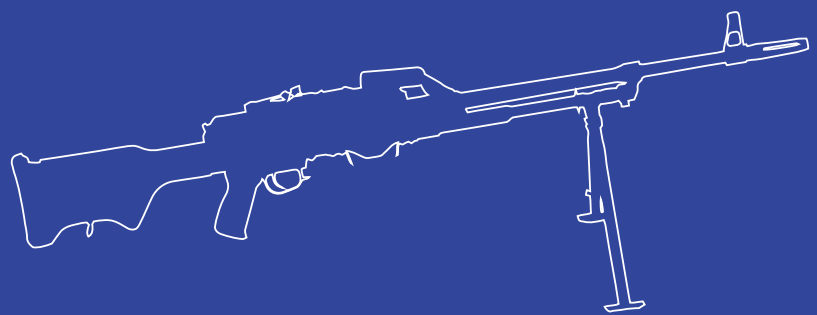


4. UNDERBARREL GRENADE LAUNCHER

At customer's request in set can be included Underbarrel grenade launcher BGP 40 mm, and Underbarrel grenade launcher BGP 40x46 mm



LIGHT MACHINE GUNS



Light machine guns are small enough to be fired and are hand-held like a rifle, but are more effective when fired from a prone position. The difference between machine guns and autocannons is based on caliber, with autocannons using calibers larger than 16 mm.

LIGHT MACHINE GUN M72 B1

Light machine gun M72 B1 functions on the Kalashnikov principle. Built-in bipod, which can be folded, facilitates aiming and firing during burst fire.



LIGHT MACHINE GUN M77

The weapon is fed from a magazine with the capacity of 20 rounds, which is the same for all automatic weapons in cal. 7.62 x 51 mm produced in Zastava Arms.



LIGHT MACHINE GUN M84

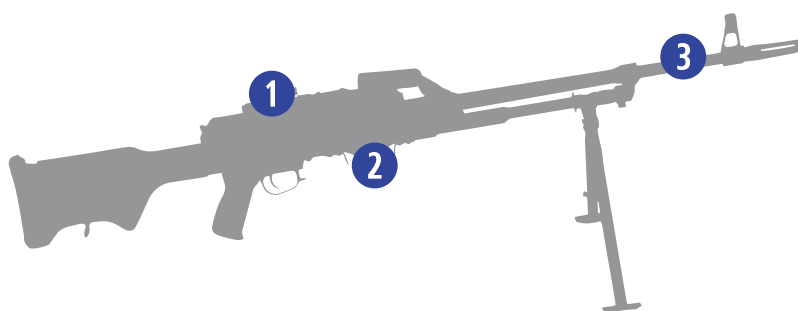
Light machine gun M84 is intended to be used by infantry units and its main feature is excellent precision at large distances. Bipod and mild recoil provide precise firing.



TECHNICAL CHARACTERISTICS

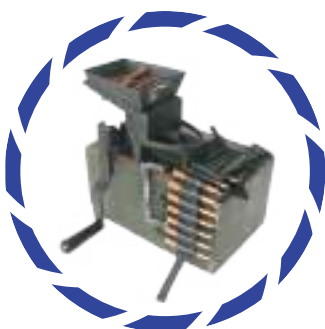
MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	WEIGHT OF MAGAZINE	RATE OF FIRE
M72 B1	7.62x39 mm	240 mm	542 mm	5,37 kg	0,37 kg	620 ± 60 rds/min
M77	7.62x51 mm	304.8 mm	535 mm	5,45 kg	0,25 kg	620 ± 60 rds/min
M84	7.62x54 mm	240 mm	603 mm	8,8 kg	0,35 kg	700-800 rds/min

OPTIONAL PARTS



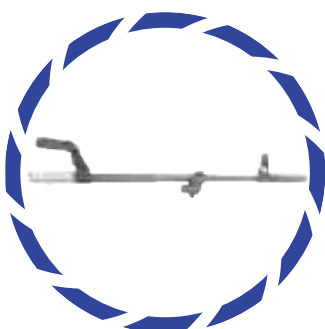
1. OPTICAL SIGHT WITH MOUNT

On customer's demand, optical sight can be assembled to improve rifle precision



2. BELT FILLER

On customer's demand, we provide belt filler. Manufacturer's recommendation is 1 belt filler per 3 light machine guns

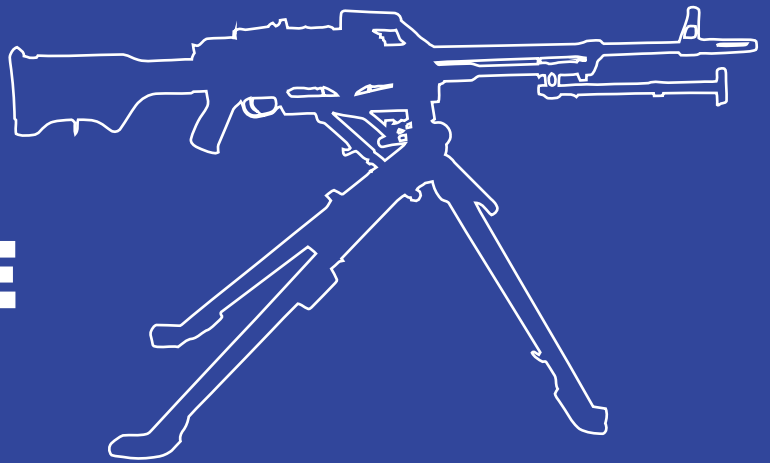


3. SPARE BARREL

At customer's request in set can be included spare barrel



MACHINE GUNS



A machine gun is a fully automatic mounted or portable firearm, usually designed to fire bullets in quick succession from an ammunition belt or magazine, typically at a rate of several hundred rounds per minute.

MACHINE GUN M84

Machine gun M84 is intended for infantry units and its main feature is excellent precision at large distances; tripod provides easy adaptation to various terrains. It is a gas operated weapon, with rotating bolt as locking system.



MACHINE GUN M86

Machine gun M86 is intended for mounting on tanks and combat vehicles, as a gun fixet to turret. Firing without direct contact with machine gun is achieved through electric trigger. Mechanical triggering is enabled through the lever on electric trigger.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	BELT CAPACITY	RATE OF FIRE
M84	7.62x54 mm	240 mm	603 mm	13,3 kg	100/250 rds	700-800 rds/min
M86	7.62x54 mm	304.8 mm	780 mm	11,6 kg	250 rds	700-800 rds/min

MACHINE GUN M87

Machine gun M87 is a licensed product based on Soviet NSV, the best heavy machine gun ever made. The design of the machine gun provides reliable function, without stoppages, in all environments. Quick and easy change of height is achieved with elevation system placed in rotating base.

*Naval version of machine gun M87 is formed by mounting to rotating base that is placed on a bell shaped mount. It is mounted on a vessel or vehicle by connecting the mount to the foundation with bolts. Quick and easy change of height is achieved with elevation system placed in rotating base.



MACHINE GUN M02 COYOTE

Machine gun M02 Coyote is formed by mounting the machine gun M87 to the cradle connected with the tripod. Pistol trigger mechanism, stock with springs and optical sight provide precise fire. After firing, cartridge cases are ejected forward, which increases the safety of the shooter and the crew around him.



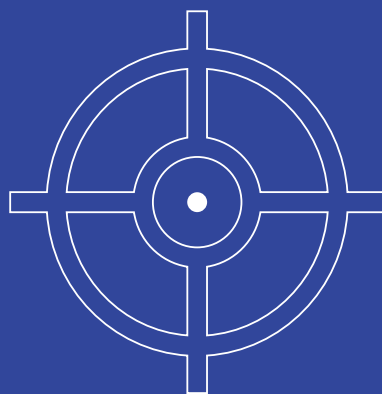
TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	WEIGHT OF MOUNT	RATE OF FIRE
M87	12,7x108mm .50Browning	381 mm	1,100 mm	125,8 kg	101 kg	700 rds/min
M02 Coyote	12.7x108mm .50 Browning	381 mm	1,100 mm	48,8 kg	24 kg	700 rds/min



SNIPER RIFLES

www



In military and law enforcement terminology, a sniper rifle is a precision-rifle used to ensure more accurate placement of bullets at longer ranges than other small arms. A typical sniper rifle is built for optimal levels of accuracy, fitted with a telescopic sight and chambered for a military centerfire cartridge.

SNIPER RIFLE M07

Sniper rifle M07 is designed on the basis of famous Mauser M98 action. Heavy barrel is made of chrome-vanadium steel, by cold forging, which guarantees exceptional precision, accuracy and long service life.



SNIPER RIFLE M07 AF

The action receiver is of polygonal shape, with built-in Picatinny rail, which enables the assembly of optical devices. Trigger mechanism with single trigger can be finely adjusted. Folding stock is made of pomymer.



SNIPER RIFLE M07 AS

Thread on the muzzle enables the assembly of accessories (gas or masking), and it is protected by a threaded ring. The height of the cheek pad can be adjusted and the length of the stock is changed by changing the number of inserts.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	WEIGHT OF MAGAZINE	MAGAZINE CAPACITY
M07	7.62x51 mm	254 mm	650 mm	5,4 kg	0,11 kg	5 rds
M07 AF	7.62x51 // 7.62x54 mm	254 // 240 mm	650 mm	6,27 kg	0,11 kg	5 rds
M07 AS	7.62x51 // 7.62x54 mm	254 // 240 mm	650 mm	6,42 kg	0,11 kg	5 rds

SNIPER RIFLE M91

Semiautomatic sniper rifle M91 is designed on the basis of well-known Kalashnikov system. Basic request of police and army forces - exceptional precision at large distances - is fulfilled and confirmed in extreme environments.



LONG RANGE RIFLE M93 BLACK ARROW

Long range rifle M93 is designed on the basis of Mauser action M98, which is proven to be precise and reliable system of bolt-action guns. Its purpose is elimination of various types of targets at large distances, up to 1,800 m, in all environments.



ANTI-MATERIEL RIFLE M12 BLACK SPEAR

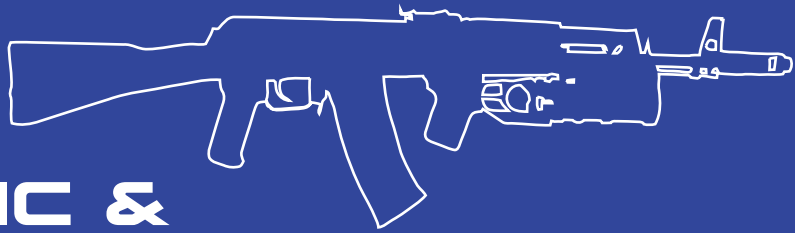
Picatinny rail, made together with the action from one piece, enables the assembly of various types of optical devices. Its purpose is elimination of various types of targets at large distances, up to 1,800 m, in all environments.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TWIST RATE	BARREL LENGTH	WEIGHT	MAGAZINE CAPACITY	MAGAZINE WEIGHT
M91	7.62x54 mm	240 mm	620 mm	5,50 kg	10 rds	0,2 kg
M93 Black Arrow	7.62x39 mm	381 mm	1,007 mm	16,7 kg	5 rds	0,76 kg
M12 Black Spear	12.7x108 mm	381 mm	1,007 mm	13,46 kg	5 rds	0,78 kg



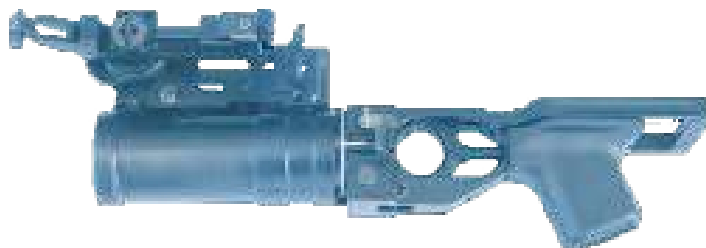


AUTOMATIC & UNDERBARREL GRENADE LAUNCHERS

A grenade launcher is a weapon that fires a specially-designed large-caliber projectile, often with an explosive, smoke or gas warhead. The most common type are man-portable, shoulder-fired weapons issued to individuals, although larger crew-served launchers are issued at higher levels of organisation by military forces.

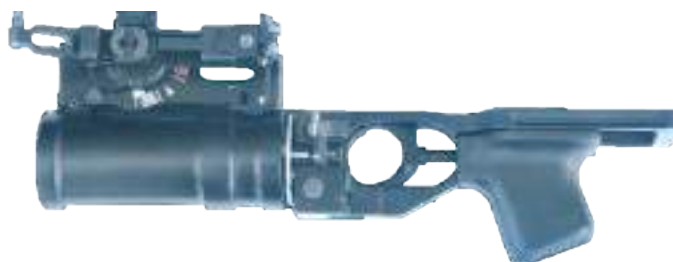
UNDERBARREL GRENADE LAUNCHER M70

The purpose of underbarrel grenade launcher BGP - 40 mm M70 is the assembly to assault rifles M70 B1 and M70 AB2. Underbarrel grenade launcher PBG - 40 mm M70 can function only when it is mounted to an assault rifle; it cannot function on its own.



UNDERBARREL GRENADE LAUNCHER PBG-40 MM

The purpose of underbarrel grenade launcher BGP - 40 mm is the assembly to assault rifles M70 B3, M70 AB3 and all assault rifles in group M21. This is a muzzle loaded weapon. It can fire grenades with anti-personnel, anti-tank, incendiary, smoke and training projectiles.



UNDERBARREL GRENADE LAUNCHER BGP-40 X 46 MM

This is a muzzle loaded weapon. It can fire grenades with anti-personnel, anti-tank, incendiary, smoke and training projectiles. The interior of the barrel is chrome plated, which provides long service life and precision of the weapon.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TOTAL LENGTH	BARREL LENGTH	WEIGHT	TYPE OF FIRE
M70	40 mm	323 mm	120 mm	1,5 kg	Single shot
PBG-40 mm	40 mm	323 mm	120 mm	1,5 kg	Single shot
BGP-40x46 mm	40x46 mm	315 mm	235 mm	1,6 kg	Single shot

AUTOMATIC GRENADE LAUNCHER M93

Automatic grenade launcher M93 is an infantry weapon intended for annihilation of covered and uncovered live forces at distances up to 1700 m, as well as for destruction of light armoured combat means at distances up to 1000 m. Reliability of its functioning in various climates and terrains was confirmed by strict testing methods, in accordance with military standards.

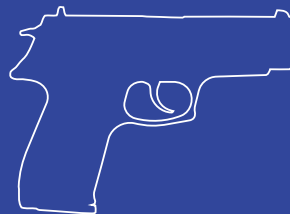


TECHNICAL CHARACTERISTICS

MODEL	CALIBER	TOTAL LENGTH	BARREL LENGTH	WEIGHT	MAXIMUM EFFECTIVE RANGE
M93	30 mm	1,305 mm	300 mm	38 kg	1700 m



PISTOLS



Handguns come in a wide array of types for a variety of purposes and needs. The most common types of pistol are the single shot, and semi-automatic. Single shot handguns were mainly seen during the era of flintlock and musket weaponry where the pistol was loaded with a lead ball and fired by a flint striker, and then later a percussion cap.

PISTOL EZ 9 / EZ 40

Pistol EZ9 is a modern weapon used as a service gun or a personal defence gun. Due to excellent design solutions, this weapon stands out with its precision, accuracy and functionality. The design of pistols EZ9 and EZ 40 differs only in caliber.



PISTOL EZ 9 COMPACT / EZ 40 COMPACT

Pistol EZ 9 Compact is a version of pistol EZ 9. To achieve better compactness of the weapon, its length was modified and the ballistic performances of basic model are preserved.



PISTOL CZ 999

The pistol is a semi-automatic weapon, functioning on the short recoil of the barrel principle. Locking is achieved by vertical oscillation of the barrel, that comes into the hole on the slide. The pistol can function as a single action or double action gun.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	CAPACITY	BARREL LENGTH	WEIGHT	HEIGHT	TOTAL LENGTH
EZ 9 / EZ 40	9 mm PARA / .40 S&W	10 / 15 / 11 rds	108 mm	0,95 kg	140 mm	198 mm
EZ 9 Compact / EZ 40 Compact	9 mm PARA / .40 S&W	10 / 15 / 11 rds	108 mm	0,95 kg	140 mm	198 mm
CZ 999	9 mm PARA	10 / 15 rds	108 mm	0,94 kg	140 mm	198 mm

PISTOL CZ 999 COMPACT

Pistol CZ999 Compact is a version of pistol CZ999 Scorpion. To achieve better compactness of the weapon, its length was modified and the ballistic performances of basic model are preserved.



PISTOL M88

Pistol M88 is a single action weapon, characterized by reliability and precision. The pistol is a semi-automatic weapon with a safe system of locking and triggering. It functions on the principle of short recoil of the barrel.



PISTOL M88 A

Pistol M88 A is an upgrade of basic model M88. It has external safety and improvements in polymer handgrip covers and the bottom of easily detachable magazine.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	CAPACITY	BARREL LENGTH	WEIGHT	HEIGHT	TOTAL LENGTH
CZ 999 Compact	9 mm PARA	10 / 15 rds	98 mm	0,9 kg	140 mm	188 mm
M88	9 mm PARA	8 rds	96 mm	0,85 kg	130 mm	175 mm
M88 A	9 mm PARA	8 rds	96 mm	0,85 kg	130 mm	175 mm

PISTOL M70

Pistol M70 is a semi-automatic single action weapon, with a safe locking and triggering mechanism. It functions on the principle of short recoil of the barrel. It is the ideal defense weapon, easy to handle and maintain.



PISTOL M70 A

The design of the pistol M70A is similar to design of Soviet pistol TT, that is, model M57. The pistol is a semi-automatic weapon with a safe system of locking and triggering. It functions on the principle of short recoil of the barrel.



PISTOL M70 AA

Pistol M70AA is an upgrade of basic model M70A. It has external safety.



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	CAPACITY	BARREL LENGTH	WEIGHT	HEIGHT	TOTAL LENGTH
M70	7.65 mm	8 rds	94 mm	0,63 kg	115 mm	165 mm
M70 A	9 mm PARA	8 rds	116 mm	0,88 kg	130 mm	200 mm
M70 AA	9 mm PARA	8 rds	116 mm	0,88 kg	130 mm	200 mm

PISTOL M57

In its design, Pistol M57 is similar to the design of the Soviet pistol TT. It has been popular for decades due to its proven high quality. The pistol is put to safety position when the hammer is pulled "to the first cam".



PISTOL M57 A

Pistol M57 A is an upgrade of basic model M57. It has an external safety and ergonomic improvements in polymer handgrip covers and the bottom of easily detachable magazine.



LUX & EXCLUSIVE

Lux pistols is common name for all standard Zastava pistols with specific handgrip covers (wooden with various types of protection; rubber), modified finish and protection of metal parts. Exclusive pistol is common name for all standard Zastava pistols with carved handgrip covers, modified surface machining and finish of handgrip covers, engraved metal parts, modified surface machining and finish of metal parts, precious metals



TECHNICAL CHARACTERISTICS

MODEL	CALIBER	CAPACITY	BARREL LENGTH	WEIGHT	HEIGHT	TOTAL LENGTH
M57	7,62 mm	9 rds	116 mm	0,88 kg	130 mm	200 mm
M57 A	7,62 mm	9 rds	116 mm	0,88 kg	130 mm	200 mm

MILITARY PROGRAM



RIFLE AMMO

CALIBER		BULLET TYPE	BULLET MASS	CARTRIDGE MASS
5,56 x 45 mm NATO BALL SS 109	Rifle cartridge with steel core bullet	BALL	4 g 62 gr	12,1 g
5,56 x 45 mm BALL M855	Rifle cartridge with steel core bullet	BALL	4 g 62 gr	12,1 g
5,56 x 45 mm BALL M193	Rifle cartridge with lead-antimony bullet	BALL	3,56 g 55 gr	11,8 g
5,56 x 45 mm TRACER M856	Rifle cartridge with tracer bullet	BALL	4,1 g 63,3 gr	12,1 g
5,56 x 45 mm NATO TRACER L110	Rifle cartridge with tracer bullet	BALL	4 g 62 gr	12,1 g
5,56 x 45 mm BLANK M200	Rifle cartridge without bullet			6,9 g
5,56 x 45 mm BLANK M200A1 (Long)	Rifle cartridge without bullet			7,2 g
5,56 x 45 mm 223 Remington	MATCH	HP BT MATCH	4,47 g 69 gr	12,5 g
5,56 x 45 mm 223 Remington	MATCH	HP BT MATCH	4,86 g 75 gr	12,9 g
7,62 x 51 mm NATO BALL M80	Rifle cartridge with lead/antimony core bullet	BALL	9,4 g 145 gr	24 g
7,62 x 51 mm NATO TRACER M62	Rifle cartridge with lead/antimony core bullet	TRACER	9,4 g 145 gr	24 g
7,62 x 51 mm SUBSONIC	Rifle cartridge with lead/antimony core bullet	BALL	12,96 g 200 gr	24,8 g
7,62 x 51 mm NATO BLANK M82	Rifle cartridge without bullet			12 g
7,62 x 51 mm NATO MATCH M852	Rifle cartridge with lead/antimony core bullet	BALL	10,9 g 168 gr	25,5 g
7,62 x 51 mm NATO SNIPER M118	Rifle cartridge with lead/antimony core bullet	BALL	11,34 g 175 gr	25,8 g
7,62 x 51 mm 308 Winchester	MATCH	HP BT MATCH	10,1 g 155 gr	24,5 g
7,62 x 51 mm 308 Winchester	MATCH	HP BT MATCH	12,3 g 190 gr	27 g
7,62 x 39 mm BALL M67	Rifle cartridge with lead/antimony core bullet	BALL	8 g 123 gr	17,4 g
7,62 x 39 mm BLANK	Rifle cartridge without bullet			9,7 g
7,62 x 39 mm SUBSONIC M78	Rifle cartridge with lead/antimony core bullet	BALL	11,8 g 182 gr	20 g

PRIMER	TEMPERATURE INTERVAL
Small rifle, Non corrosive, Non mercuric, Boxer	-54oC +52oC
Small rifle, Non corrosive, Non mercuric, Boxer	-54oC +52oC
Small rifle, Non corrosive, Non mercuric, Boxer	-54oC +52oC
Small rifle, Non corrosive, Non mercuric, Boxer	-54oC +52oC
Small rifle, Non corrosive, Non mercuric, Boxer	-54oC +52oC
Small rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
Small rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
Small rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
Small rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
Large rifle, Non corrosive, Non mercuric Berdan (A-009), Boxer (A-306)	-54°C +52°C
Large rifle, Non corrosive, Non mercuric Berdan (A-532), Boxer (A-412)	-54°C +52°C
Large rifle, Non corrosive, Non mercuric Berdan (A-568), Boxer (A-548)	-54°C +52°C
Large rifle, Non corrosive, Non mercuric Berdan (A-445), Boxer (A-420)	-20°C +52°C
Large rifle, Non corrosive, Non mercuric Berdan (A-525), Boxer (A-386)	-54°C +52°C
Large rifle, Non corrosive, Non mercuric Berdan (A-526), Boxer (A-387)	-54°C +52°C
Large rifle, Non corrosive, Non mercuric, Boxer	-54°C +52°C
Large rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
Large rifle, Non corrosive, Non mercuric, Boxer	-40°C +52°C
Large rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
Large rifle, Non corrosive, Non mercuric, Boxer	-40°C +52°C



RIFLE AMMO

CALIBER		BULLET TYPE	BULLET MASS	CARTRIDGE MASS
7,62 x 54 mm BALL M30 (J)	Rifle cartridge with lead/antimony core bullet	BALL	11,8 g 182 gr	24,9 g
7,62 x 54 BALL M87	Rifle cartridge with steel core bullet	BALL	9,6 g 148 gr	22,7 g
7,62 x 54 BALL BLANK	Rifle cartridge without bullet			22,7 g
7,62 x 54 mm SNIPER M03	Rifle cartridge with lead/antimony core bullet	SNIPER M03	11,8 g 182 gr	24,9 g
7,62 x 54 mm SNIPER	Rifle cartridge with lead/antimony core bullet	SNIPER	11,8 g 182 gr	24,9 g
7,62 x 54 mm MATCH	Rifle cartridge with lead/antimony core bullet	303MK8 ^z	12,3 g 190 gr	25,5 g
338 Lapua Magnum (8,60 x 70 mm)	Rifle cartridge with lead/antimony core bullet	BALL	16,2 g 250 gr	44 g
338 Lapua Magnum (8,60 x 70 mm)		HP BT	16,2 g 250 gr	44 g
.50 BROWNING (12,7 x 99 mm) SNIPER		SOLID RM06-2	47 g 725 gr	119 g
.50 BROWNING (12,7 x 99 mm) SNIPER BALL M33		BALL, Tombac jacket, Core with lead/antimony+ steel core+lead coverage	45,3 g 699 gr	116 g
.50 BROWNING (12,7 x 99 mm) BLANK				55 g
12,7 x 108 mm SNIPER M09		SOLID M09	51,3 g 792 gr	134 g
12,7 x 108 mm BALL		BALL, Jacket: Tombac plated steel Core with aluminium on the top + core with lead/antimony	51,3 g 792 gr	134 g
12,7 x 108 mm BALL		BALL, Jacket: Tombac plated steel Core with lead/antimony	51,3 g 792 gr	134 g

PISTOL SUBMACHINE GUN AND REVOLVER AMMO

9 x 19 mm	Pistol cartridge With lead/antimony core bullet	BALL	7,45 g 115 gr	11,7 g
9 x 19 mm	Pistol cartridge With lead/antimony core bullet	BALL	8,0 g 124 gr	12,1 g
9 x 19 mm	Pistol cartridge With lead/antimony core bullet	SUBSONIC BALL	9,5 g 147 gr	13,7 g
9 x 19 mm	Pistol cartridge With lead/antimony core bullet	BLANK		5,4 g

PRIMER	TEMPERATURE INTERVAL
Large rifle, Non corrosive, Non mercuric, Berdan 6,55 DTN	-40°C +52°C
Large rifle, Non corrosive, Non mercuric, Berdan 6,55 DTN	-40°C +52°C
Large rifle, Non corrosive, Non mercuric, Berdan (A-422), Boxer (A-392)	-20°C +52°C
Large rifle, Non corrosive, Non mercuric, Berdan 6,55 DTN	-40°C +52°C
Large rifle, Non corrosive, Non mercuric, Berdan 6,55 DTN	-20°C +52°C
Large rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
Large rifle magnum, Non corrosive, Non mercuric, Boxer	-54°C +52°C
Large rifle magnum, Non corrosive, Non mercuric, Boxer	-54°C +52°C
Large rifle 12,7, Non corrosive, Non mercuric, Boxer	-54°C +52°C
Large rifle 12,7, Non corrosive, Non mercuric, Boxer	-54°C +52°C
Large rifle 12,7, Non corrosive, Non mercuric, Boxer	-20°C +52°C
Large rifle 12,7, DSK Berdan	-54°C +52°C
Large rifle 12,7, DSK Berdan	-54°C +52°C
Large rifle 12,7, DSK Berdan	-54°C +52°C



Small pistol, Non corrosive
Non mercuric, Boxer

-54°C
+52°C



Small pistol, Non corrosive
Non mercuric, Boxer

-54°C
+52°C



Small pistol, Non corrosive
Non mercuric, Boxer

-30°C
+52°C



Small pistol, Non corrosive
Non mercuric, Boxer

-20°C
+52°C



STANDARD RIFLE AMMUNITION

CALIBER	BULLET TYPE	BULLET WEIGHT	ROUNDS BOX / CASE	GROSS WEIGHT
22 HORNET	SP	2.90 g	50 / 2000	16.80 kg
222 REMINGTON	SP/FMJ BT	3.24 g	20 / 1000	12.40 kg
22-250 REMINGTON	SP/FMJ BT	3.24 g	20 / 1000	12.70 kg
243 WINCHESTER	SP	5.80 g	20 / 500	13 kg
25-06 REMINGTON	HP/PSP	5.80 g	20 / 500	13.40 kg
264 WINCHESTER MAGNUM	PSP	9.10 g	20 / 500	16.20 kg
270 WINCHESTER	SP	8.40 g	20 / 500	13.40 kg
30 CARBINE	SPRN/FMJRN	7.10 g	50 / 500	6.80 kg
308 WINCHESTER	FMJ BT/SP/PSP BT/HP BT/GROM	8 g	20 / 500	12.50 kg
30-30 WINCHESTER	FSP	9.70 g	20 / 500	11.80 kg
30-06 SPRINGFIELD	SP/PSP BT/HP BT/FMJ/GROM/Z-GROM	8 g	20 / 500	12.90 kg
300 WINCHESTER MAGNUM	SP/SPBT/SP	9.40 g	20 / 500	16.10 kg
300 WINCHESTER MAGNUM	SPBT/FMJ BT	9.70 g	20 / 500	13.20 kg
338 LAPUA MAGNUM	FMJBT/HP BT	16.20 g	20 / 400	19.50 kg
375 H&H MAGNUM	SPRN/FMJ	19.50 g	20 / 400	18.30 kg
45-70 GOVERNMENT	SJFP	26.25 g	20 / 500	20 kg
7 mm REMINGTON MAGNUM	PSP BT/GROM/HP/SP/Z-GROM/FMJ BT	7.80 g	20 / 500	15.60 kg
6 mm REMINGTON	SP	5.80 g	20 / 500	13.10 kg
6.5 mm GRENDL	FMJ BT/HP BT/SP	7.10 g	20 / 500	10 kg
7.62 x 51 M80	FMJ BT	10 g	20 / 500	12.60 kg

METRIC RIFLE AMMO

CALIBER	BULLET TYPE	BULLET WEIGHT	ROUNDS BOX / CASE	GROSS WEIGHT
6.5 x 52 CARCANO	SP/SP BT/ FMJ BT/SP RN	8 g	20 / 500	11.40 kg
6.5 x 55 SWEDISH	HP BT/SP/SP BT/FMJ BT/SP RN	7.80 g	20 / 500	12.50 kg
6.5 X 54 MANN-SCHOENAUER	SP RN	10.10 g	20 / 500	13 kg
6.5 x 57 MAUSER	SP/SP BT/ FMJ BT/SP RN	8 g	20 / 500	12.50 kg
7 mm - 08 REMINGTON	HP/PSP BT	7.80 g	20 / 500	12.50 kg
7 mm MAUSER	SP/GROM/Z-GROM/	9 g	20 / 500	13.30 kg
7 x 57 R	SP/GROM/	9 g	20 / 500	13.30 kg
7.5 x 54 FRENCH	Z-GROM/FMJ BT	9 g	20 / 500	17.20 kg
7.5 x 55 SWISS	FMJ	11.30 g	20 / 500	12.90 kg
7.62 x 39	FMJ BT/SP	8 g	20 / 500	18.50 kg
7.62 x 54 R	PSP/SP RN/FMJ	9.70 g	20 / 500	12.60 kg
7 x 64	SP BT/FMJ BT	9 g	20 / 500	13.80 kg
7.65 x 53 ARGENTINE	SP BT/FMJ BT/SP BT	9.7 g	20 / 500	13.30 kg
7.9 x 33 KURZ	FMJ BT	8 g	20 / 500	17 kg
8 mm MAUSER	SP/HP BT/PSP BT/GROM/ Z-GROM/FMJ BT	9 g	20 / 500	15 kg
8 x 57 IRS	SP/FMJ BT	12.7 g	20 / 500	16 kg
8 x 50 R LEBEL	FMJ BT	12.69 g	20 / 500	17 kg
8 x 56 RS MANNLICHER	SP/FMJ BT	13.5 g	20 / 500	16.50 kg
9.3 x 62	SP/ Solid HP	18.5 g	20 / 500	19 kg
9.3 x 74 R	SP/ Solid HP	18.5 g	20 / 500	19 kg

STD RIFLE AMMO

THUNDER AMMUNITION



CALIBER	BULLET TYPE	BULLET WEIGHT	ROUNDS BOX / CASE	GROSS WEIGHT
308 WINCHESTER	FMJ/FMJ BT/SP/PSP BT/ GROM/HP BT	8 g	20 / 500	12.50 kg
30-06 SPRINGFIELD	FSP	9.70 g	20 / 500	11.80 kg
300 WINCHESTER MAGNUM	SP/FMJ BT/PSP BT/HP BT/ GROM/Z-GROM	9.40 g	20 / 500	16.10 kg
7 mm MAUSER	SP/GROM/Z-GROM	9 g	20 / 500	13.70 kg
7 mm REMINGTON MAGNUM	HP/PSP BT/SP/GROM/ Z-GROM/HP BT	7.80 g	20 / 500	15.60 kg
8 mm MAUSER	SP/HP BT/PSP BT/GROM/Z- GROM/FMJ BT	9 g	20 / 500	13.50 kg

MATCH AMMUNITION



CALIBER	BULLET TYPE	BULLET WEIGHT	ROUNDS BOX / CASE	GROSS WEIGHT
223 REMINGTON MATCH	SP	4.47 g	50 / 2000	13.20 kg
308 WINCHESTER MATCH	HP BT/FMJ BT/MATCH Solid	10.9 g	20 / 500	14.80 kg
6.5x55 SWEDISH MATCH	HP BT/FMJ BT/SP/SP BT/ SP RN	7.80 g	20 / 500	12.70 kg
7.62x54 R MATCH	FMJ BT	11.80 g	20 / 500	14 kg
8 mm MAUSER MATCH	SP/HP BT/PSP BT/GROM/ Z-GROM/FMJ BT	12.96 g	20 / 500	15 kg

STD RIFLE AMMO

5.56 / 223 REMINGTON



CALIBER	BULLET TYPE	BULLET WEIGHT	ROUNDS BOX / CASE	GROSS WEIGHT
5.56x45 mm	FMJ BT	3.56 g	20 / 1000	12.70 kg
223 REMINGTON	SP/FMJ BT/HP BT	4.01 g	20 / 1000	13.20 kg

6.8 REMINGTON SPC



CALIBER	BULLET TYPE	BULLET WEIGHT	ROUNDS BOX / CASE	GROSS WEIGHT
6.8 REMINGTON SPC	FMJ BT/HP BT	7.45 g	20 / 500	12.50 kg

300 AAC BLACKOUT



CALIBER	BULLET TYPE	BULLET WEIGHT	ROUNDS BOX / CASE	GROSS WEIGHT
300 AAC BLACKOUT	FMJ/HP BT	8 g	20 / 500	12.60 kg

STD RIFLE AMMO

HANDGUN AMMUNITION



CALIBER	BULLET TYPE	BULLET WEIGHT	ROUNDS BOX / CASE	GROSS WEIGHT
22 REMINGTON JET	SP	2.9 g	50 / 1000	9.40 kg
25 AUTO	FMJ	3.25 g	50 / 1000	5.60 kg
32 AUTO	FMJ/JHP	4.6 g	50 / 1000	8.50 kg
32 SMITH & WESSON LONG	LRN/WC	6.35 g	50 / 1000	5.20 kg
380 AUTO	FMJ/JHP	6.1 g	50 / 1000	10.10 kg
38 SPECIAL	FMJ/FMS/FPJ/SJFP/SJHP/ LRN/SWC/SWC HP/ WC	8.4 g	50 / 1000	7.20 kg
38 SMITH & WESSON	LRN	9.4 g	50 / 1000	14.50 kg
357 MAGNUM	FMS/FPJ/SJHP/SJFP	10.2 g	50 / 1000	8.60 kg
357 SIG	FPJ	8.1 g	50 / 1000	14 kg
38 SUPER AUTO +P	FMJ	8.4 g	50 / 1000	7.30 kg
40 SMITH & WESSON	FPJ/TMJ/JHP	10.7 g	50 / 1000	8.20 kg
44 REMINGTON MAGNUM	FPJ/JHP/JHP/SJHP/SJFP	11.7 g	50 / 1000	11 kg
45 AUTO	SJHP/FMJ/ TMJ/LRN	12 g	50 / 1000	9.40 kg
7.63 MAUSER	FMJ	5.5 g	50 / 1000	6 kg
7.62x25 TOKAREV	FMJ/JHP	5.5 g	50 / 1000	6 kg
7.62 NAGANT	FPJ	6.35 g	50 / 1000	6.50 kg
7.65 PARABELLUM	FMJ	6 g	50 / 1000	11.20 kg
9x18 MAKAROV	FMJ/JHP	6 g	50 / 1000	10.50 g
9 mm LUGER	FMJ/SJFP/TMJ/ JHP/ LRN/SJSP/FPJ	6.15 g	50 / 1000	11.30 g
9x21	FMJ/LRN	8 g	50 / 1000	13.10 g
9 mm BROWING LONG	FMJ	7 g	50 / 1000	11.70 g
10 mm AUTO	FPJ/JHP	11 g	50 / 1000	8.60 g

BLANK AMMUNITION

CALIBER	LOAD
30-06 SPRINGFIELD BLANK	PP-3.5
303 BRITISH BLANK	PP-3.7
5.56 M200	PP-5.1
5.56 M200 A1	PP-5.0
7.62x39 BLANK	PP-31
7.9 BLANK	PP-7.9
45 AUTO BLANK	PP-R4.32
308 WINCHESTER BLANK	PP-3.20
7.62x54 R BLANK	PP-7.6
9 mm LUGER BLANK	PP-R9.3
9 mm PA BLANK	PP-R9.6



BULLET ABBREVIATIONS

HANDGUN AMMUNITION CALIBER	
FMJ	FULL METAL JACKET
SP	SOFT-POINT
JHP	JACKETED HOLLOW POINT
FMS	FULL METAL SPITZ
FPJ	FLAT POINT JACKET
SJFP	SEMI-JACKED FLAT POINT
SJHP	SEMI-JACKED HOLLOW POINT
SJSP	SEMI-JACKED SOFT POINT
WC	WAD CUTTER
SWC	SEMI-WAD CUTTER
SWC HP	SEMI-WAD CUTTER HOLLOW POINT
TMJ	TOTAL METAL JACKET
LRN	LEAD ROUND NOSE

RIFLE AMMUNITION CALIBER	
FMJ	FULL METAL JACKET
FMJ BT	FULL METAL JACKET BOAT TAIL
FMJ RN	FULL METAL JACKET ROUND NOSE
SP	SOFT-POINT
PSP	POINTED SOFT-POINT
SP BT	SOFT-POINT BOAT TAIL
PSP BT	POINTED SOFT-POINT BOAT TAIL
SP RN	SOFT-POINT ROUND NOSE
FSP	FLAT SOFT-POINT
HSP	HOLLOW SOFT-POINT
HP	HOLLOW POINT
HP BT	HOLLOW POINT BOAT TAIL



MORTAR SHELLS



In military and law enforcement terminology, a sniper rifle is a precision-rifle used to ensure more accurate placement of bullets at longer ranges than other small arms. A typical sniper rifle is built for optimal levels of accuracy, fitted with a telescopic sight and chambered for a military centerfire cartridge.

MORTAR SHELLS

MORTAR SHELLS 60 mm



60 MM

DESIGNATION	HE	HE	HE	HE
				
DESCRIPTION / MODEL	M73M	73 P3	M73 P4	M73 P5
LENGTH WITH FUZE (mm)	291	301	291	301
MASS WITH FUZE (g)	1350	1350	1350	1350
EXPLOSIVE CHARGE TYPE	TNTT	NT	TNTT	NT
EXPLOSIVE CHARGE MASS (g)	220	220	220	220
TEMPERATURE ENVIRONMENT	-30°C to 50°C-	30°C to 50°C-	30°C to 50°C-	30°C to 50°C
KILLING RANGE RADIUS	10 m	10 m	10 m	10 m
MAX RANGE (m)	2550	2550	2550	2550
MIN RANGE (m)	94	94	94	94
FUZE TYPE	UT M68 P1	UT M68 P1	UT M88 P1	UTU M93-N
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	12	1	29 kg	

MORTAR SHELLS 60 mm



60 MM

DESIGNATION	HE	HE	HE	HE
				
DESCRIPTION / MODEL	M08M	08 P1	MK10	MK10 P1
LENGTH WITH FUZE (mm)	301	301	4104	10
MASS WITH FUZE (g)	1350	1350	2100	2100
EXPLOSIVE CHARGE TYPE	TNTT	NT	TNTT	NT
EXPLOSIVE CHARGE MASS (g)	220	220	4004	00
TEMPERATURE ENVIRONMENT	-46°C to 60°C	46°C to 60°C4	6°C to 60°C	46°C to 60°C
KILLING RANGE RADIUS	10 m	10 m	14 m	14
MAX RANGE (m)	2550	2550	5100	5100
MIN RANGE (m)	94	94	90	90
FUZE TYPE	UT M88 P1	UTU M93-NU	T M88 P1	UTU M93
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	12	12	9 kg	

MORTAR SHELLS

MORTAR SHELLS 60 mm

DESIGNATION	ILLUMINATING	ILLUMINATING	ILLUMINATING	ILLUMINATING
60 MM				
DESCRIPTION / MODEL	M67M	67 P2M	08	M91
LENGTH WITH FUZE (mm)	3303	30	3304	95
MASS WITH FUZE (g)	1270	1270	1270	2100
EXPLOSIVE CHARGE TYPE	180.000 Cd / 35 s1	80.000 Cd / 35 s1	80.000 Cd / 35 s	350.000 Cd / 30 s
EXPLOSIVE CHARGE MASS (g)	200	200	200	300
TEMPERATURE ENVIRONMENT	-30°C to 50°C-	30°C to 50°C-	30°C to 50°C-	30°C to 50°C
KILLING RANGE RADIUS	/	/	/	/
MAX RANGE (m)	2450	2450	2450	4000
MIN RANGE (m)	4004	00	400	400
FUZE TYPE	TP M67	TP M67	TP M67T	P M67
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	12	12	7 kg	



MORTAR SHELLS 60 mm

DESIGNATION	ILLUMINATING	SMOKE	SMOKE	SMOKE
60 MM				
DESCRIPTION / MODEL	MK10	M73M	73 P2	M08
LENGTH WITH FUZE (mm)	495	286	286	
MASS WITH FUZE (g)	2100	1350	1350	1350
EXPLOSIVE CHARGE TYPE	350.000 Cd / 30 s	//		/
EXPLOSIVE CHARGE MASS (g)	300/		//	
TEMPERATURE ENVIRONMENT	-30°C to 50°C-	30°C to 50°C-	30°C to 50°C-	46°C TO 63°C
KILLING RANGE RADIUS	////			
MAX RANGE (m)	4000	2550	2550	2550
MIN RANGE (m)	4009	49	49	4
FUZE TYPE	TP M67	UT M68 P1	UT M68 P1	UT M88 P1
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	12	12	7 kg	



MORTAR SHELLS

MORTAR SHELLS 60 mm



60 MM

DESIGNATION	SMOKE	SMOKE	SMOKE	PRACTICE
DESCRIPTION / MODEL	MK10	M93M	08	M62
LENGTH WITH FUZE (mm)	410	330	330	202 (no fuze)
MASS WITH FUZE (g)	2100	1400	1400	1080 (no fuze)
EXPLOSIVE CHARGE TYPE	/	/	/	/
SMOKE CHARGE MASS (g)	230	4504	50	/
TEMPERATURE ENVIRONMENT	-46°C to 63°C-	30°C to 50°C-	30°C to 50°C-	46°C to 63°C
KILLING RANGE RADIUS	/	/	/	/
MAX RANGE (m)	5100	2400	2400	50
MIN RANGE (m)	90	300	300	50
FUZE TYPE	UT M88 P1T	P M67T	P M67/	/

SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS
CARDBOARD BOXES IN WOODEN CASE	12	12	8 kg

MORTAR SHELLS 81/82 mm



81/82 MM

DESIGNATION	HE	HE	HE	HE
DESCRIPTION / MODEL	M72 / 74M	72 P3 / M74 P3M	72 P4 / M74 P4	M09
LENGTH WITH FUZE (mm)	3754	00	4004	00
MASS WITH FUZE (g)	3050	3180	3180	3180
EXPLOSIVE CHARGE TYPE	TNTT	NT	TNTT	NT
EXPLOSIVE CHARGE MASS (g)	680	680	680	680
TEMPERATURE ENVIRONMENT	-30°C to 50°C-	30°C to 50°C-	30°C to 50°C-	46°C to 63°C
KILLING RANGE RADIUS	14 m	14 m	14 m	14 m
MAX RANGE (m)	5070	5070	5070	5070
MIN RANGE (m)	91	91	91	91
FUZE TYPE	UT M68P1U	TU M93-NU	T M88 P1	UT M88 P1

SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS
CARDBOARD BOXES IN WOODEN CASE	51		29 kg

MORTAR SHELLS

MORTAR SHELLS 81/82 mm

81/82 MM



DESIGNATION	HE	HE	HE	HE
				
DESCRIPTION / MODEL	M09 P1	M91M	91 P1M	K11
LENGTH WITH FUZE (mm)	400	480	480	480
MASS WITH FUZE (g)	3180	4100	4100	4100
EXPLOSIVE CHARGE TYPE	TNTR	DX / TNT	RDX / TNT	RDX / TNT
EXPLOSIVE CHARGE MASS (g)	680	850	8508	50
TEMPERATURE ENVIRONMENT	-46°C to 63°C-	30°C to 50°C-	30°C to 50°C-	46°C to 60°C
KILLING RANGE RADIUS	14 m	18 m	18 m	14 m
MAX RANGE (m)	50706	5006	500	6500
MIN RANGE (m)	91	1001	00	100
FUZE TYPE	UTU M93-NU	T M88 P1	UTU M93-NU	T M88 P1
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	51		34 kg	

MORTAR SHELLS 81/82 mm

81/82 MM



DESIGNATION	HE	ILLUMINATION	ILLUMINATION	ILLUMINATION
				
DESCRIPTION / MODEL	MK11 P1	M67M	67 P2M	09
LENGTH WITH FUZE (mm)	480	4104	10	410
MASS WITH FUZE (g)	4100	2950	2950	2950
ILLUMINATING POWER / TIME	/	500.000 Cd / 40 s	500.000 Cd / 35 s	500.000 Cd / 30 s
EXPLOSIVE CHARGE MASS (g)	850/	/	/	/
TEMPERATURE ENVIRONMENT	-46°C to 63°C-	30°C to 50°C-	30°C to 50°C-	30°C to 50°C
KILLING RANGE RADIUS	18 m	/	/	/
MAX RANGE (m)	6500	3650	3650	3650
MIN RANGE (m)	100	250	2502	50
FUZE TYPE	UTU M93-NT	P M67T	P M67T	P M67
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	51		27 kg	

MORTAR SHELLS

MORTAR SHELLS 81/82 mm

81/82 MM



DESIGNATION

ILLUMINATION

ILLUMINATION

SMOKE

SMOKE



DESCRIPTION / MODEL

M95M

K11M

72 / M74

M72 P3 / M74 P3

LENGTH WITH FUZE (mm)

5305

30

375

400

MASS WITH FUZE (g)

4250

42503

050

3180

ILLUMINATING POWER / TIME

750.000 Cd /
40 s

750.000 Cd /
40 s

/

/

ILLUMINATING CHARGE MASS (g)

7007

00

/

/

TEMPERATURE ENVIRONMENT

-30°C to 50°C-

30°C to 50°C-

30°C to 50°C-

46°C TO 63°C

SMOKE CHARGE WEIGHT (g)

/

/

550

550

MAX RANGE (m)

5480

5480

5070

5070

MIN RANGE (m)

300

3009

19

1

FUZE TYPE

TP M67P2

TP M67P2U

T M68 P1

UT M88P1

SHELL PACKING

BOXES IN CASE

SHELLS IN CARDBOARDG

GROSS MASS

CARDBOARD BOXES IN WOODEN CASE

51

28 kg

MORTAR SHELLS 81/82 mm

81/82 MM



DESIGNATION

SMOKE

HIGH-SMOKE

HIGH-SMOKE

HIGH-SMOKE



DESCRIPTION / MODEL

MK11

M88M

88 P1M

95

LENGTH WITH FUZE (mm)

478

4104

10

480

MASS WITH FUZE (g)

4100

2950

2950

4250

SMOKE TIME

min 120 sm

in 120 sm

in 120 sm

in 120 s

SMOKE CHARGE WEIGHT (g)

7008

50

850

850

TEMPERATURE ENVIRONMENT

-46°C to 63°C-

30°C to 50°C-

30°C to 50°C-

30°C to 50°C

KILLING RANGE RADIUS

/

/

/

/

MAX RANGE (m)

6500

3400

3400

5480

MIN RANGE (m)

90

300

300

300

FUZE TYPE

UT M88 P1T

P M67T

P M67T

P M67P2

SHELL PACKING

BOXES IN CASE

SHELLS IN CARDBOARD

GROSS MASS

CARDBOARD BOXES IN WOODEN CASES

13

5 kg

MORTAR SHELLS

MORTAR SHELLS 81/82 mm

81/82 MM



DESIGNATION

SMOKE

HIGH-SMOKE

PRACTICE

PRACTICE



DESCRIPTION / MODEL

M91M

09

M68 PARACHUTE TARGETM

62

LENGTH WITH FUZE (mm)

478

4803

80 (no fuze)2

87

MASS WITH FUZE (g)

4100

4250

2300 (no fuze)

2048

SMOKE TIME

min 120 s

min 120 s

/

/

SMOKE CHARGE WEIGHT (g)

7008

50

/

/

TEMPERATURE ENVIRONMENT

-30°C to 50°C-

30°C to 50°C/

/

/

KILLING RANGE RADIUS

/

/

/

/

MAX RANGE (m)

6500

5480

/

280

MIN RANGE (m)

90

300

/5

0

FUZE TYPE

UT M88 P1

TP M67

/

/

SHELL PACKING

BOXES IN CASE

SHELLS IN CARDBOARD

GROSS MASS

CARDBOARD BOXES IN WOODEN CASE

5

13

5 kg

MORTAR SHELLS 120 mm

DESIGNATION

HE

HE

HE

PRACTICE

120 MM



DESCRIPTION / MODEL

M62 P8

MK12 P1M

K12 P1-L

M63 P2

LENGTH WITH FUZE (mm)

606

606

606

508 (no fuze)

MASS WITH FUZE (g)

12,6

14.8

14.8

11.6 (no fuze)

EXPLOSIVE CHARGE TYPE

RDX / TNT

TNTT

NT

/

EXPLOSIVE CHARGE MASS (g)

2.45

2.45

2.45

/

TEMPERATURE ENVIRONMENT

-30°C to 50°C

-46°C to 63°C

-46°C to 63°C

/

KILLING RANGE RADIUS

20 m2

4 m2

4 m/

MAX RANGE (m)

6500

74009

400

500

MIN RANGE (m)

255

255

2755

0

FUZE TYPE

UTU M93 P1 SQ/DU

TU M93P1 SQ/DU

TU M93P1 SQ/D/

SHELL PACKING

BOXES IN CASE

SHELLS IN CARDBOARD

GROSS MASS

CARDBOARD BOXES IN WOODEN CASE2

1

44 kg

MORTAR SHELLS

MORTAR SHELLS 120 mm

DESIGNATION	SMOKE	SMOKES	MOKE	SMOKE
120 MM				
DESCRIPTION / MODEL	M64 P2	M64 P3	MK12	M89
LENGTH WITH FUZE (mm)	6006	06	800	670
MASS WITH FUZE (g)	12.6	12.6	14.8	11.25
SMOKE TIME	min 210 sm	in 210 s	min 210 sm	in 210 s
TEMPERATURE ENVIRONMENT	-30°C to 50°C-	30°C to 50°C-	46°C to 63°C	-30°C to 50°C
SMOKE CHARGE WEIGHT (kg)	2.45	2.45	2.45	1.65
KILLING RANGE RADIUS	/	/	/	/
MAX RANGE (m)	6500	6500	74006	000
MIN RANGE (m)	255	255	255	400
FUZE TYPE	UT M68 P1	UT M88 P1U	T M88 P1	TP M87
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE2		1	44 kg	



MORTAR SHELLS 120 mm

DESIGNATION	ILLUMINATION	ILLUMINATION	
120 MM			
DESCRIPTION / MODEL	M87 P1	M01	
LENGTH WITH FUZE (mm)	670	752	
MASS WITH FUZE (g)	10.7	11.5	
ILLUMINATING POWER / TIME	1.000.000 Cd / 60 s1	.000.000 Cd / 60 s	
ILLUMINATING CHARGE MASS (kg)	1.21	.2	
TEMPERATURE ENVIRONMENT	-30°C to 50°C-	30°C to 50°C	
KILLING RANGE RADIUS	/	/	
MAX RANGE (m)	6000	6600	
MIN RANGE (m)	4004	00	
FUZE TYPE	TP M87	TP M87P1	
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARDG	ROSS MASS
BOXES IN WOODEN CASE2		13	7 kg



AIRCRAFT ROCKETS & BOMBS



The rockets are used to annihilate air targets at altitudes of up to 30.000 m, for assault actions against mobile and stationary armoured targets such as tanks, armoured vehicles, carriers, light weapon and vehicles, aircrafts on the ground and personnel around the stated combat means.

AIRCRAFT BOMBS

AIRCRAFT ROCKET 57 mm



DESCRIPTION / MODEL	BR-1-57B	R-2-57	BR-20-57
LENGTH WITH FUZE (mm)	882	8241	200
MASS (g)	3.83	.644	.5
EXPLOSIVE CHARGE MASS (g)	285	290	320
MAXIMUM SPEED	673 to 617 rn/s	563 to 620 rn/s	/
1 KM FLYING TIME	1.89 to 2.19 s2	.46 to 2.17 s/	
PRESSURE IN THE ROCKET CHAMBER	380 kg/cm2	375 kg/cm2/	
FUZE TYPE	UTI-1	UTI-2	UTI-2
ROCKET PACKING	BOXES IN CASE	SHELLS IN CARDBOARDG	ROSS MASS
WOODEN CASE	21		37 kg



AIRCRAFT BOMBS

AIR BOMBS- FAB

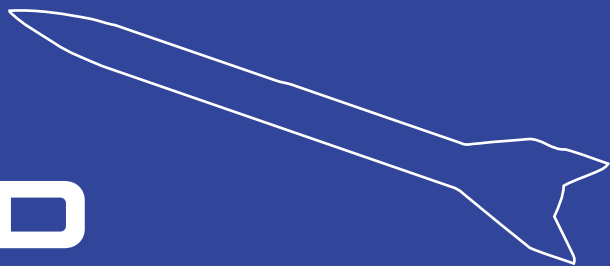


DESCRIPTION / MODEL	FAB-100 M80 HE	FAB-100 M80 HE RETARDED	FAB-250 M79 HE	RAB-250 M91
LENGTH WITH FUZE (mm)	1490	1617	2015	2085
MASS WITHOUT FUZE (kg)	1171	28	240	252
EXPLOSIVE CHARGE MASS (g)	39	39	1057	0
DIAMETER (mm)	230	230	325	320
HOOK SPACING (mm)	255 / 355.6	255 / 355.6	255 / 355.6	355.6 / 250
TEMPERATURE ENVIRONMENT	-40 to +50C-	40 to +50C-	40 to +50C	-40 to +60C
FUZE TYPE	AUV-E / AUFK	AUFK	AUV-E / AUFK	UPB M91
BOMBS PACKINGB	OMBS IN CRATE		FINS	
CRATE	3		12	





UNGUIDED ROCKETS



Unguided rockets for multi-tube launchers intended for impact, sudden and quick fire assaults on surface targets in the depth of the enemy. It is efficient against all types of the targets: personnel, unshielded and armored vehicles.

UNGUIDED ROCKETS

M06 - EXTENDED RANGE UNGUIDED ARTILLERY ROCKET

107 MM



DESCRIPTION / MODEL		
CALIBER (mm)	107	
LENGTH WITH FUZE (mm)	825	
MASS WITH FUZE (kg)	17.6	
WARHEAD EXPLOSIVE WEIGHT (kg)	1.25	
MAXIMUM RANGE (km)	11.5	
OPERATING TEMPERATURE RANGE	-32°C to +60°C	
FUZE TYPE	UTI M84	
ROCKET PACKING	BOXES IN CASE	GROSS MASS
WOODEN CASE	2	49 kg



UNGUIDED ROCKETS



UNGUIDED ROCKET 122 MM - GRAD / GRAD -M / GRAD 2000

122 MM



DESCRIPTION / MODEL	GRAD	GRAD - M	GRAD 2000
CALIBER (mm)	1221	22	122
LENGTH WITH FUZE (mm)	2875	2875	2925
MASS WITH FUZE (kg)	67.3	69.3	68.3
WARHEAD EXPLOSIVE WEIGHT (kg)	19.1	19.1	19.1
MAXIMUM RANGE (km)	27.8	27.8	40
OPERATING TEMPERATURE RANGE	-30°C to +50°C	-30°C to +50°C	-30°C to +50°C
ROCKET PACKING	BOXES IN CASE		GROSS MASS
WOODEN CASE	26		7 kg

UNGUIDED ROCKETS

UNGUIDED ROCKET M-77 128 MM - OGANJ

128 MM



DESCRIPTION / MODEL

CALIBER (mm)	128
LENGTH WITH FUZE (mm)	2600
MASS WITH FUZE (kg)	67
WARHEAD EXPLOSIVE WEIGHT (kg)	19.5
MAXIMUM RANGE (km)	21.5
OPERATING TEMPERATURE RANGE	-32°C to +60°C
FUZE TYPE	UTU, M77

ROCKET PACKING

BOXES IN CASE

GROSS MASS

WOODEN CASE

1

75 kg



OGANJ C is self-propelled multi-tube missile launcher intended for impact, sudden and quick fire assaults on surface targets in the depth of the enemy. It is efficient against all types of the targets: personnel, unshielded and armored vehicles. OGANJ C, for firing from multi-tube missile launcher, uses point-detonating-demolition missile M77 (OGANJ M77). The launcher is loaded on the vehicle TAM 150 T11 BV6 x 6. It is possible to mount it on other vehicles of similar characteristics (FAP 1417, for example). The system is modularly designed in such a way as to permit mounting of the "PLAMEN" launching device with 32 tubes, put on the universal upper carriage. The launcher design meets all the ergonomic requirements providing comfortable and safe work. Mechanism drive is manual. On the user's request, it can be modified to semi-automatic operation. The launcher deployment time is 30 seconds. Time, needed for firing position leave, is 30 seconds. Masses distribution provides proper center of gravity position during transportation with FULL/EMPTY combination while the launching device has been turned over to the original position by 180°.

UNGUIDED ROCKETS



UNGUIDED ROCKET 128 MM - PLAMEN

128 MM



DESCRIPTION / MODEL	PLAMEN A	PLAMEN D
CALIBER (mm)	1281	28
LENGTH WITH FUZE (mm)	8379	71
MASS WITH FUZE (kg)	23.1	25.5
WARHEAD EXPLOSIVE WEIGHT (kg)	2.63	.3
MAXIMUM RANGE (km)	8.61	2.6
OPERATING TEMPERATURE RANGE	-30°C to +50°C	-30°C to +50°C
ROCKET PACKING	BOXES IN CASE	
WOODEN CASE	1	

UNGUIDED ROCKETS

ARTILLERY SHELLS



“KRUŠIK” PRODUCES DIFFERENT CALIBER OF ARTILLERY SHELLS:

100 mm

125 mm

152 mm

105 mm

130 mm

155 mm



UNGUIDED ROCKETS

100 mm / 105 mm / 125 mm/ 130 mm / 152 mm / 155 mm



These calibers are used for completion of artillery missiles, as well as fuses and gun primers. We perform completion of artillery missiles. We are also equipped for all types of acceptance control tests done prior to including the device into the armament of an army.



ANTITANK GUIDED MISSILE “MALJUTKA”

Wire guided antitank missile with semiautomatic guidance system (SACLOS) 9M14P1 (and improved 9M14PB1 with nose probe extended) is effective antitank combat weapon at ranges up to 3000 m with high hit probability and high armour penetrating capability up to 460 mm (9M14P1), i.e. 580 mm (9M14PB1).



DESCRIPTION		
MAXIMUM RANGE	3000 m	
MAXIMUM EFFECTIVE FIRING RANGE	500 m	
MAXIMUM RANGE FLIGHT TIME	25 s	
FIRING RATE (MISSILE/MIN)	2	
ARMOUR PENETRATING CAPABILITY	460 - 580 mm	
OPERATING TEMPERATURE RANGE	-40°C to +50°C	
GUIDANCE	wire-guided command, optical tracking by sighting line	
ROCKET PACKING	MISSILES IN CASE	GROSS MASS
WOODEN CASE1		11 kg

MALYUTKA 2M / 2T / 2F

MALYUTKA 2M / 2T / 2F

Three versions of missiles are developed so far:

Malyutka 2M with HEAT warhead and enhanced penetration capability

Malyutka 2T with tandem warhead and

Malyutka 2F with thermobaric warhead



DESCRIPTION / MODEL	MALYUTKA 2MM	ALYUTKA 2TM	ALYUTKA 2F
MAXIMUM RANGE	2800 m2	800 m2	800 m
CALIBER (mm)	1201	20	120
AVERAGE FLIGHT SPEED (m/s)	110	110	110
MISSILE LENGTH (mm)	1097	12649	68
ARMOUR PENETRATING CAPABILITY	800 mm	800 + ERA8	kg TNT (equivalent for thermobaric warhead)
OPERATING TEMPERATURE RANGE	-40°C to +50°C	-40°C to +50°C	-40°C to +50°C
GUIDANCE	wire-guided command, optical tracking by sighting line		
ROCKET PACKINGM	ISSILES IN CASEG	ROSS MASS	
WOODEN CASE	12	0 kg	

82 mm AMMUNITION FOR RECOILLES GUN

Cartridge 82 mm with reactive-cumulative shell M72 is intended for destroying tanks, selfpropelled weapons and other armoured and combat vehicles. It can be used as well for the annihilation of live force and the fire-arms of the enemy, that are in pillboxes or blockhouses (fortified buildings) far up to 1000 meters.



DESCRIPTION

CALIBER (mm)	82
EXPLOSIVE CHARGE (TNT + RDX) (kg)	0.710
MASS (kg)	7.8
PENETRATION (mm)	400
RANGE (m)	1000

44 mm AMMUNITION FOR ROCKET LAUNCHER

Cumulative shell M80 for hand launcher 44 mm is intended for destroying tanks, selfpropelled weapons and other armoured and combat vehicles. It can be used as well for the annihilation of live force and the fire-arms of the enemy, that are in pillboxes or blockhouses (fortified buildings) far up to 220 meters.



DESCRIPTION	
CALIBER (mm)	44
GRAZING RANGE (m)	200
MASS (kg)	2.45
PENETRATION (mm)	400
RANGE (m)	1000

40 MM AMMUNITION

40 mm AMMUNITION

Designed to be used against live force, in both open and sheltered space. It is fired from grenade launcher GP-25 mounted under the barrel of the Kalashnikov machinegun (AK-74, AKS-74, AKM, AK-101) as well as new M21 rifles produced by "Zastava" Kragujevac. This bullets can be fired directly (holding the device on the shoulder) to the range 50 to 400m, and indirectly (curved trajectory) to the range 200 to 350m.



40 MM AMMUNITION

40 mm AMMUNITION				
DESIGNATION	BLASTINGB	LASTING	CUMULATIVE	HE
40 MM				
DESCRIPTION / MODEL	M02M	04	M04M	04
LENGTH (mm)	1051	25	1081	03
MASS (g)	260	300	2601	90
EXPLOSIVE CHARGE MASS (g)	49	40	32	/
SELF DESTRUCTION TIME (s)	15	15	15	15
TEMPERATURE ENVIRONMENT	-53°C to 71°C	-53°C to 71°C-	53°C to 71°C	-53°C to 71°C
PENETRATION (mm)	//		50	/
MAX RANGE (m)	4004	00	4004	00
MIN RANGE (m)	//		//	
FUZE TYPE	UT, M02 SPU	T, M07	UT, M02 SPU	T, M04
SHELL PACKING	CONTAINERSB	OX DIMENSION		GROSS MASS
PLASTIC CONTAINERS IN WOODEN BOX4	0	59,6 x 36,6 x 19,6 cm		23.5 kg



40 mm AMMUNITION			
DESIGNATION	INCENDIARY	SMOKE	PRACTICE
40 MM			
DESCRIPTION / MODEL	M04M	04	M04
LENGTH (mm)	1051	08	105
MASS (g)	260	260	260
SMOKE MIXTURE MASS (g)	/1	00	/
SELF DESTRUCTION TIME (s)	15	15	15
TEMPERATURE ENVIRONMENT	-53°C to 71°C	-53°C to 71°C-	53°C to 71°C
INCIDENTARY MIXTURE MASS (g)	80	/8	0
MAX RANGE (m)	4004	00	400
MIN RANGE (m)	//		/
FUZE TYPE	UT, M02 SP	UT, M02 SP	UT, M02 SP
SHELL PACKINGB	OXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS
CARDBOARD BOXES IN WOODEN CASE4	0	59,6 x 36,6 x 19,6 cm	23.5 kg



HAND GRENADES



DESCRIPTION / MODEL	HAND GRENADE M-84	
MASS (g)	82	
DIMENSIONS (mm)	60x115	
EXPLOSIVE CHARGE MASS (g)	95	
STEEL BALLS DIAMETER (mm)	2.3	
SAFETY RING PULLING FORCE (n)	110	
FUZE DELAY TIME (s)	3-5.7	
PACKING	BOXES IN WOODEN CASE	CASE GROSS WEIGHT
PLASTIC BOX IN WOODEN CASE	24	23.5 kg



HAND GRENADES

DESCRIPTION / MODEL	HAND GRENADE M-75
MASS (g)	355
DIMENSIONS (mm)	57x89
EXPLOSIVE CHARGE MASS (g)	36
STEEL BALLS DIAMETER (mm)	2.5-2.9
SAFETY RING PULLING FORCE (n)	7-18
FUZE DELAY TIME (s)	3-4.4



PACKING	BOXES IN WOODEN CASE	CASE GROSS WEIGHT
PLASTIC BOX IN WOODEN CASE	36	23

DESCRIPTION / MODEL	CHAPED-CHARGE HAND GRENADE (BRK)
MASS (g)	1000
LENGTH (mm)	399
EXPLOSIVE CHARGE MASS (g)	340
WARHEAD DIAMETER (mm)	74.5
STEEL PLATE PENETRATION (mm)	280
SERVICE TEMPERATURE RANGE	-30°C to +50°C



PACKING	BOXES IN WOODEN CASE
PLASTIC BOX IN WOODEN CASE	12



DESCRIPTION / MODEL	HAND SHOCK BOMB
MASS (g)	454
TIME INTERVAL BETWEEN SOUND EFFECTS (s)	1.5
SOUND EFFECT INTENSITY	130 db to 15 m
SERVICE LIFE	5 years
SERVICE TEMPERATURE RANGE	-30°C to +50°C



PACKING	BOXES IN WOODEN CASE
PLASTIC BOX IN WOODEN CASE	12

AT MINES

ANTI-TANK MINES



ANTIMAGNETIC ANTITANK MINE - 6 (TMA - 6)	
MASS (g)	7.2
DIMENSIONS (mm)	290x132
EXPLOSIVE CHARGE MASS (g)	5.1
EXPLOSIVE CHARGE TYPE	CAST TNT
STEPPING-ON AREA	200 mm (314 cm ²)
ACTIVATION FORCE	1.3 – 1.7 daN
PACKING	MINES IN BOXB
BOX	4



		OX GROSS WEIGHT
		43 kg



ANTIMAGNETIC ANTITANK MINE - 4 (TMA - 4)	
MASS (g)	6.3
DIMENSIONS (mm)	285x110
EXPLOSIVE CHARGE MASS (g)	5.5
EXPLOSIVE CHARGE TYPE	CAST TNT
STEPPING-ON AREA	200 mm (314 cm ²)
ACTIVATION FORCE	100 – 200 daN
PACKING	MINES IN BARREL
BARREL AT MINES	4



ARREL GROSS WEIGHT	
28 kg	

FUZE TP - M67 P1



PURPOSE The fuze is intended for Illuminating mortar shell and Long-smoking shells, Cal. 60 mm

DESCRIPTION TP – M 67 P1 is time - pyrotechnic fuze on zirconium basis

FUZE TP - M67 P1



PURPOSE The fuze is intended for Illuminating mortar shell and Long-smoking shells, Cal. 81/82 mm

DESCRIPTION TP – M 87 is time - pyrotechnic fuze on zirconium basis

FUZE TP - M87



PURPOSE The fuze is intended for Illuminating mortar shell and Long-smoking shells, Cal. 60 mm

DESCRIPTION TP – M 87 is time - pyrotechnic fuze on zirconium basis

FUZE ETU - M365



PURPOSE Electronic Time Fuze ETU, M365 is intended for assembling of Illuminating and Smoke Mortar shells of 60mm, 81/82mm and 120mm calibers

DESCRIPTION The Fuze ETU, M365 is based on modern microprocessor technology. Time recording is performed by means of time setter. The set fuze time is stored for 20 minutes, thereafter being automatically erased in order to save battery power

FUZE UT - M68 P1



PURPOSE The fuze is intended for assembling of HE mortar shells and SMOKE mortar shells of all calibers with bearings that are compatible with connecting measures or can be assembled with appropriate adaptors

DESCRIPTION T-M68P1 is mechanical, point- detonating, impact fuze of superquick action

FUZE UT - M88 P1



PURPOSE	The fuze is intended for assembling of HE and SMOKE mortar shells of all calibers with bearings that are compatible with connecting measures or can be assembled with appropriate adaptors
DESCRIPTION	UT – M88 is mechanical, point-detonating, impact fuze of superquick action equipped with hard trans-port safety element including an ancillary safety mechanism

FUZE UT - M88 P2



PURPOSE	The fuze is intended for assembling of HE and SMOKE mortar shells of all calibers with bearings that are compatible with connecting measures or can be assembled with appropriate adaptors
DESCRIPTION	UT – M88 P2 is mechanical, point-detonating, impact fuze of superquick action equipped with hard transport safety element including an ancillary safety mechanism

FUZE PD UTU - M93-N



PURPOSE	The fuze is intended for assembling of HE mortar shells of all calibers with bearings that are compatible with connecting measures or can be assembled with appropriate adaptors
DESCRIPTION	PD UTU, M93 is mechanical, point-detonating, impact fuze of superquick and delay action adjustable by a mode selector (superquick “T” or delay “U”). It is equipped with hard transport safety element including an ancillary safety mechanism

FUZE PD UTU - M93 P1



PURPOSE	The fuze is intended for assembling of HE mortar shells of all calibers with bearings that are compatible with connecting measures or can be assembled with appropriate adaptors.
DESCRIPTION	PD UTU, M93 is mechanical, point-detonating, impact fuze of superquick and delay action adjustable by a mode selector (superquick “T” or delay “U”). It is equipped with hard transport safety element including an ancillary safety mechanism

FUZE UTU - M78 (AU-29)



PURPOSE	The fuze is intended for HE mortar shells of superquick action, Cal. 120 mm.
DESCRIPTION	UTU - M78 is point - detonating, mechanical fuze of superquick and delay action adjustable by sleeve turning. It is equipped with transport safety element for handling, transportation and parachuting

FUZE UTU - M77



PURPOSE The fuze is intended for "OGANJ" HE warhead, Cal. 128 mm

DESCRIPTION UTU - M77 is point - detonating, mechanical, impact fuze of superquick and delay action adjustable by a mode selector (superquick "T" or delay "U")

FUZE UTI - 1



PURPOSE The fuze is intended to initiate the explosion of HEAT warhead of the 57 mm missile when fired from honeycomb L - 57 type launchers having the tube rear part open

DESCRIPTION UTI - 1 is point - detonating, mechanical, impact fuze with remote arming and self - destruction devices

FUZE UTI - 2



PURPOSE The fuze is intended to initiate the explosion of HEAT warhead of the 57 mm missile when fired from honeycomb L - 57 type launchers having the tube rear part open

DESCRIPTION The fuze is intended for "MUNJA" HEAT warhead, Cal. 128 mm

FUZE UTI - M84



PURPOSE The fuze is intended for M63, M87 and PLAMEN-D missiles, Cal. 128 mm equipped with superquick blast warhead as well as for missile with smoke warhead of same caliber

DESCRIPTION UTI - M84 is point - detonating, mechanical, impact fuze of superquick and inertia action

FUZE UTI - M84 P1



PURPOSE The fuze is intended for M15 rocket, Cal.107mm equipped with superquick blast warhead as well as for missile with smoke warhead of same caliber

DESCRIPTION UTI - M84 P1 is point - detonating, mechanical, impact fuze of superquick and inertia action

FUZE UTIU - M72 B1 (AU – 18)



PURPOSE UTIU – M72 B1 is point – detonating, mechanical fuze of superquick, inertia and delay action adjustable by sleeve turning and cap removing

DESCRIPTION The fuze is intended for HE grenades , Cal. 85, 100, 122, 130 and 152 mm

FUZE UTIU- M85 (AU - 20E)



PURPOSE UTIU – M72 B1 is point – detonating, mechanical fuze of superquick, inertia and delay action adjustable by sleeve turning and cap removing

DESCRIPTION The fuze is intended for HE grenades , Cal. 85, 100, 122, 130 and 152 mm

FUZE UTIU, M15



PURPOSE The fuze is intended for HE projectile, Cal. 155 mm M107

DESCRIPTION UTIU, M15 is point-detonating, mechanical fuze of superquick, inertia and delay action adjust-able by sleeve turning.

FUZE MRV-U (AU - 32)



PURPOSE The fuze is intended for “GRAD” HE warhead, Cal. 122 mm

DESCRIPTION MRV-U – M 85 is point-detonating, mechanical fuze of superquick and delay action. Action selecting by turning of sleeve

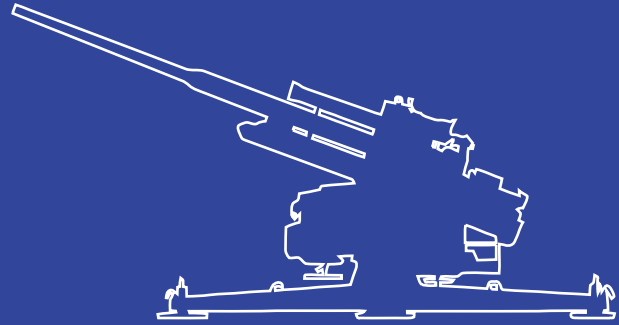
FUZE AUFK - M91



PURPOSE The fuze is intended for high-explosive aircraft bombs with or without drag chute

DESCRIPTION AUFK – M 91 is impact ,inertia-type of an electric - mechanical fuze for aircraft bombs with superquick (T) and delay action (U) adjustable by mode selector





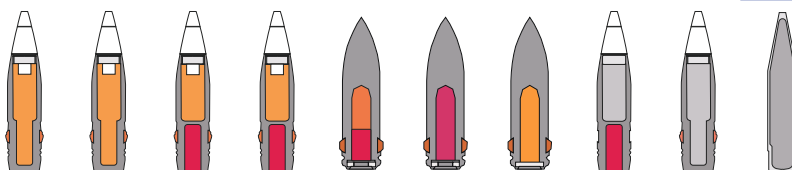
ANTI-AIRCRAFT AMMUNITION

Anti-aircraft guns are weapons designed to attack aircraft. Such weapons commonly have a high rate of fire and are able to fire shells designed to damage aircraft. They also are capable of firing at high angles, but are also usually able to hit ground targets as well in a direct fire role.

20 mm x 110 for AA GUN M55, HS 404 and HS 804 "HISPANO"

NATO DESIGNATION HE HEIH E-TH EI-T API-T API AP-T TP-T TP BLANK

20 MM



WEIGHT (g)

PROJECTILE (g)	1221	22	1221	22	1421	42	1421	22	122m	in 70
PROPELLANT (g)	29	29	29	29	32	32	32	29	29	29
EXPLOSIVE (g)	12.1	12.1	6.16	.1	none	none	nonen	onen	one	none
COMPLETE ROUND (g)	2462	46	2462	46	2652	65	2652	46	246	195
EXPLOSIVE TYPE	RDXR	DX+ALR	DX	RDX+ALn	onen	onen	one	none	nonen	one
LENGTH (COMPLETE ROUND)	1841	84	1841	84	1821	82	1821	84	184	184
MUZZLE VELOCITY (m/s)	8458	45	8458	45	8448	44	8448	45	845n	one
SELF-DESTRUCTION TIME (s)	4.5-84	.5-8	4.5-84	.5-8	none	nonen	onen	onen	one	none
TRACER BURNING TIME (s)	//		3.53	.5	3.53	.5	/3	.5	//	

PACKING

ROUNDS IN CASE

DIMENSIONS

GROSS MASS

WOODEN CASE

100

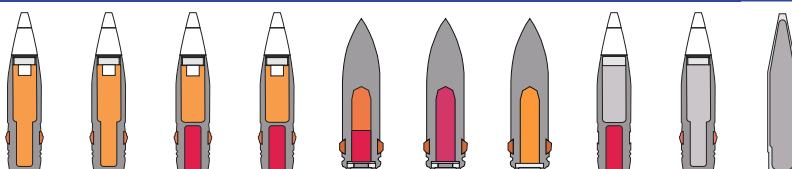
660 x 232 x 200 mm

34 kg

20 mm x 110 RB FOR AA GUN MK-IV "OERLIKON"

NATO DESIGNATION HE HEIH E-TH EI-T API-T API AP-T TP-T TP BLANK

20 MM



WEIGHT (g)

PROJECTILE (g)	1191	19	1221	22	1421	42	1421	22	119m	in 70
PROPELLANT (g)	29	29	29	29	32	32	32	29	29	29
EXPLOSIVE (g)	12.1	12.1	6.16	.1	none	none	nonen	onen	one	none
COMPLETE ROUND (g)	2462	46	2462	46	2652	65	2652	46	246	195
EXPLOSIVE TYPE	RDXR	DX+ALR	DX	RDX+ALn	one	nonen	one	nonen	onen	one
LENGTH (COMPLETE ROUND)	1841	84	1841	84	1821	82	1821	82	1841	84
MUZZLE VELOCITY (m/s)	8458	45	8458	45	8448	44	8448	45	845	none
SELF-DESTRUCTION TIME (s)	4.5-94	.5-9	4.5-94	.5-9	none	nonen	one	nonen	onen	one
TRACER BURNING TIME (s)	//		3.53	.5	3.5/		3.53	.5	//	

PACKING

ROUNDS IN CASE

DIMENSIONS

GROSS MASS

WOODEN CASE1

00

660 x 232 x 200 mm3

4 kg

23 mm x 115 FOR AA GUN GSH-23L and GSH-23LU

NATO DESIGNATION

EH

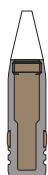
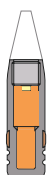
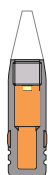
EI

TP

API-T

API

23 MM



WEIGHT (g)

PROJECTILE (g)	1741	74	1741	68	174
PROPELLANT (g)	37	37	37	37	37
EXPLOSIVE (g)	16.3	16.3n	one	nonen	one
COMPLETE ROUND (g)	3293	29	3313	21	331
EXPLOSIVE TYPE	RDXR	DX+AL	nonen	onen	one
LENGTH (COMPLETE ROUND)	197.91	97.9	197.91	97.8	197.8
MUZZLE VELOCITY (m/s)	7207	20	7207	20	720
TRACER BURNING TIME (s)	none	none	none	3.5	none

PACKING

ROUNDS IN CASED

IMENSIONS

ROSS MASS

WOODEN CASE

100

705 x 250 x 202 mm

42 kg

23 mm x 152 B FOR AA GUN ZU-2 and ZSU-4

NATO DESIGNATION

HE

HEIH

E-TH

EI-T

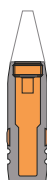
API-T

API

TP-T

TP

23 MM



WEIGHT (g)

PROJECTILE (g)	1821	82	1901	90	1901	90	190	182
PROPELLANT (g)	78	78	78	78	78	78	78	78
EXPLOSIVE (g)	19.6	19.6	16.3	16.35		5n	onen	one
COMPLETE ROUND (g)	4404	40	4504	50	4504	50	450	440
EXPLOSIVE TYPE	RDXR	DX+ALR	DX	EDX+AL	none	none	nonen	one
LENGTH (COMPLETE ROUND)	2362	36	2362	36	2362	36	236	236
MUZZLE VELOCITY (m/s)	9709	70	9709	70	9709	70	9709	70
SELF-DESTRUCTION TIME (s)	5.6-11.25	.6-11.25	.6-11.2	5.6-11.25	.6-11.25	.6-11.25	.6-11.25	.6-11.2
TRACER BURNING TIME (s)	none	none3	.5	3.53	.5	/3	.5	/

PACKING

OUNDS IN CASED

IMENSIONS

ROSS MASS

WOODEN CASE8

0

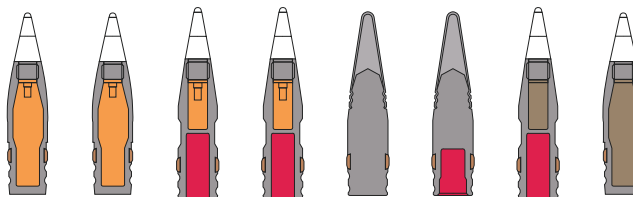
688 x 286 x 229 mm

44 kg

30 MM X 165 FOR AA GUN 30 mm AO 18

NATO DESIGNATION	HE	HEI	HE-T	HEI-TA	PA	P-TT	P-TT	P
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30 MM



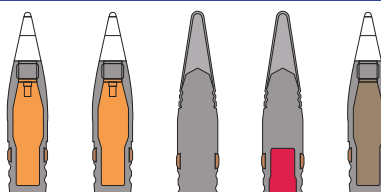
WEIGHT (g)								
PROJECTILE (g)	3893	89	3853	85	4004	00	385	389
PROPELLANT (g)	1211	21	1211	21	1261	26	1211	21
EXPLOSIVE (g)	49	49	11.5	11.5	nonen	onen	onen	one
COMPLETE ROUND (g)	8398	39	8358	35	8538	53	835	839
EXPLOSIVE TYPE	RDXR	DX+ALR	DX	RDX+AL	none	none	none	none
LENGTH (COMPLETE ROUND)	2912	91	2912	91	2922	92	292	292
MUZZLE VELOCITY (m/s)	8908	90	8908	90	8908	90	890	890
SELF-DESTRUCTION TIME (s)	13-191	3-19	13-191	3-19	none	none	none	none
TRACER BURNING TIME (s)	none	none	10	10	none	3.51	On	one

PACKING	ROUNDS IN CASE	DIMENSIONSG	ROSS MASS
WOODEN CASE	30	576 x 338 x 218 mm	37 kg

30 mm x 165 RB FOR AA GUN 30 mm GSH 301

NATO DESIGNATION	HE	HEI	AP	AP-T	TP
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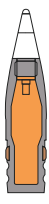
30 MM



WEIGHT (g)					
PROJECTILE (g)	3893	89	4004	00	389
PROPELLANT (g)	1211	21	1261	26	121
EXPLOSIVE (g)	49	49	none	nonen	one
COMPLETE ROUND (g)	8408	40	8508	50	840
EXPLOSIVE TYPE	RDXR	DX+ALn	onen	onen	one
LENGTH (COMPLETE ROUND)	2902	90	2922	92	290
MUZZLE VELOCITY (m/s)	8608	60	8608	60	860
SELF-DESTRUCTION TIME (s)	none	none	none3	.5	none
TRACER BURNING TIME (s)	none	none	none3	.5	none

PACKING	ROUNDS IN CASE	DIMENSIONSG	ROSS MASS
WOODEN CASE	30	576 x 338 x 218 mm	37 kg

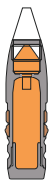
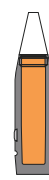
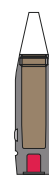
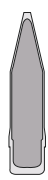
30 MM X 165 FOR AA GUN 30 mm 2A72, 2A42 and 2A38M

NATO DESIGNATION	HE	HEI	HE-T	HEI-TA	PA	P-TT	P-TT	P
30 MM								
WEIGHT (g)								
PROJECTILE (g)	3853	89	3853	85	4004	00	3853	89
PROPELLANT (g)	1211	21	1211	21	1261	26	1211	21
EXPLOSIVE (g)	49	49	11.5	11.5n	onen	one	none	none
COMPLETE ROUND (g)	8338	33	8358	35	8538	53	835	833
EXPLOSIVE TYPE	RDXR	DX+ALR	DX	RDX+AL	none	none	nonen	one
LENGTH (COMPLETE ROUND)	2922	92	2912	91	2922	92	291	291
MUZZLE VELOCITY (m/s)	9609	60	9609	60	9709	70	960	960
SELF-DESTRUCTION TIME (s)	7.5-14.5	7.5-14.5	7.5-14.5	7.5-14.5	none	none	none	none
TRACER BURNING TIME (s)	none	none1	01	0	none3	.5	10	none
PACKING	ROUNDS IN CASE		DIMENSIONS		GROSS MASS			
WOODEN CASE	30		576 x 338 x 218 mm		37 kg			



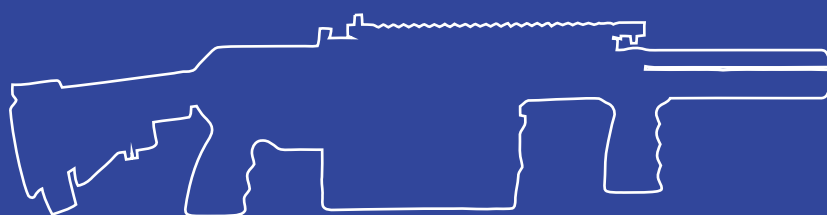
30 mm x 210B FOR AA GUN 30 MM AK-230

30 MM X 220 FOR AA GUN 30/2 M53, 53/59 (CS)

NATO DESIGNATION	HE	AP-T	TP	HEI	HEI-TT	P-TB	LANK
30 MM							
WEIGHT (g)							
PROJECTILE (g)	3563	50	356	4354	35	435m	in 250
PROPELLANT (g)	1901	90	1901	95	1951	95	195
EXPLOSIVE (g)	31.1	none	none	40.8	35.7	none	none
COMPLETE ROUND (g)	1066	1050	1066	1140	1140	1140m	in 960
EXPLOSIVE TYPE	RDX+AL	none	none	RDX+AL	RDX+AL	nonen	one
LENGTH (COMPLETE ROUND)	3043	04	304	3313	31	331	331
MUZZLE VELOCITY (m/s)	1060	1095	1060	9979	97	997/	
SELF-DESTRUCTION TIME (s)	12-7	none	none	9-13	9-13	none	none
TRACER BURNING TIME (s)	none	min 2n	one	none	44		none
PACKING	ROUNDS IN CASE		DIMENSIONS		GROSS MASS		
AK-230	WOODEN CASE	37 / 40	576 x 338 x 218 mm	37 kg			
M53, 53/59W	WOODEN CASE	40	642 x 355 x 176 mm	61 kg			







SMALL CALIBER AMMUNITION

SMALL CALIBER AMMO

	30mm HE, M93 P1	30mm TP, M93	30mm PM, M93 P1
NATO DESIGNATION	HE	TP	PM

30 MM



WEIGHT (g)			
MASS OF ROUND (g)	360	360	360
MASS OF PROJECTILE (g)	2732	73	273
LENGTH (mm)	1321	32	132
MUZZLE VELOCITY (m/s)	1851	85	185
MAXIMUM RANGE (m)	1700	1700	1700
TYPE	UT M99 SD	TRAINING PRACTICE	UT M02 PM SD
SELF DESTRUCTION (s)	27	/2	7
SAFETY DISTANCE	10 m in front of barrel/		10 m in front of barrel

	M99	M99	M99	M03
NATO DESIGNATION	HEPD-SD	HEDP-SD (DUAL PURPOSE)T	PSFM	HE

40 MM



WEIGHT (g)				
MASS OF ROUND (g)	1041	04	1041	06
MASS OF GRENADE (g)	250	250	233	360
PROJECTILE LENGTH (mm)	82	82	82	/
MASS OF EXPLOSIVE (RDX) (g)	48	35	//	
MUZZLE VELOCITY (m/s)	78	78	76	76
ARMING DISTANCE OF FUZE (m)	8-30	8-30	8-25	50
MAXIMUM RANGE (m)	4004	00	4004	00
SELF DESTRUCTION (s)	15-201	5-20	15-201	5-20
PENETRATION (mm)	/m	in 25 (armour steel plate)/		/
SAFETY DISTANCE	//		/1	5 m in front of barrel

SMALL CALIBER AMMO

	M04	M04	M01
NATO DESIGNATION	ED STAR WITH PARACHUTE	ILLUMINATING WITH PARACHUTE	ILLUMINATING

40 MM



WEIGHT (g)			
COMPLETE GRENADE LENGTH (mm)	114	114	
MASS OF GRENADE (g)	250	250	265
PROJECTILE LENGTH (mm)	82	82	/
MASS OF PROJECTILE (g)	200	//	
MUZZLE VELOCITY (m/s)	78	78	76
DELAY TIME (s)	2-32	-3	/
BURNING TIME OF STAR (s)	min 15	min 15	min 20
LIGHT INTENSITY OF STAR (cd)	min 10 000	min 80 000	min 80 000
FLARE TYPE	green / blue / yellow / white	white	white

	M99	M99M	01 S	M99
NATO DESIGNATIONS	SMOKE WHITE	SMOKE CS	SMOKE	FLASH

40 MM



WEIGHT (g)				
MASS OF ROUND (g)	1061	06		106
MASS OF GRENADE (g)	230	220	250	230
PROJECTILE LENGTH (mm)	76	76	115	76
MASS OF EXPLOSIVE (RDX) (g)	180	170	/	180
MUZZLE VELOCITY (m/s)	78	78	75	78
SMOKE TIME (s)	min 20	min 20	60	/
FIRING RANGE (m)	50-400	50-400m	ax 400	50-400
DELAY TIME (s)	2-3	2-3	/2	-3
SOUND INTENSITY (db)	//		/	120
LIGHT INTENSITY (cd)	//		/2	000 000
FLARE TYPE	white	white / red / green / yellow/		/

SMALL CALIBER AMMO

40 MM

	M04	M05
NATO DESIGNATION	BUCKSHOT	FLECHETTE
		
WEIGHT (g)		
MASS (g)	250	250
LENGTH (mm)	106	106
MUZZLE VELOCITY (m/s)	50	200
MAXIMUM RANGE (m)	400	50-100
NUMBER OF PELLETS (pcs)	min 50	/
PELLET DIAMETER (mm)	8	/
NUMBER OF FLECHETTES (pcs)	/	min 50
FLECHETTE DIAMETER / LENGTH (mm)	/	50 / 2

30 MM

	RIFLE GRENADES WITH BULLET TRAPM91 P1	M99	M03
NATO DESIGNATION	HE	HE	HE BT
			
WEIGHT (g)			
MASS (g)	555	555	450
LENGTH (mm)	3153	15	270
TYPE	fragmentationf	ragmentationf	ragmentation
FUZE	Impact, superquick actionl	mpact, superquick actionl	mpact, superquick action
ACTION ON FRAGMENTS IN FIELD	100 m in dia	100 m in dia	100 m in dia
ARMING DISTANCE (m)	Grenade must act. upon cardboard 1mm thick, at the distance of 50 m	Grenade must act. upon cardboard 1mm thick, at the distance of 50 m	Grenade must act. upon cardboard 1mm thick, at the distance of 50 m
GRENADE EFFECT	Have 100 penetrations trough a board 20 mm tick, at pen test D=10 m and 1,5m high	Have 350 penetrations trough a board 20 mm tick, at pen test D=10 m and 1,5m high	Have 100 penetrations trough a board 20 mm tick, at pen test D=10 m and 1,5m high
SELF DESTRUCTION TIME (s)	15-201	5-20	15-20
SAFETY DISTANCE	Min. 20 m in front of barrelIM	in.15 m in front of barrelIM	in. 15 m in front of barrel

SMALL CALIBER AMMO

RIFLE GRENADES	M60	M62	M62	M60 P1
NATO DESIGNATION	ANTITANK	SMOKE	ILLUMINATING	FRAGMENTATION

60 MM

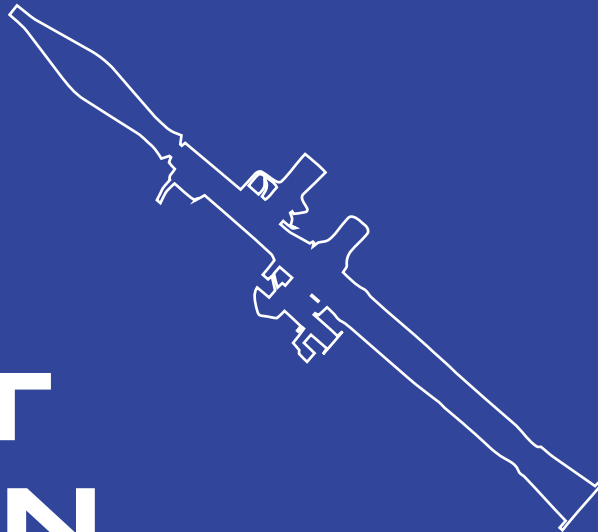


WEIGHT (g)				
MASS (g)	610	475	450	520
LENGTH (mm)	390	330	330	307
PENETRATION (mm)	200 (at 100 m)	/	/	/
SMOKE TIME (s)	/	70-100	/	/
BURNING TIME (s)	/	/	min 24	/





ROCKET WEAPON



A rocket is a self-propelled, unguided weapon system powered by a rocket motor. Rockets are used primarily as medium and long-range artillery systems, although historically they have also seen considerable use as air-to-ground, some use as air-to-air weapons, and even a few examples of surface-to-air devices.

ROCKET WEAPON



64 mm HAND ANTI TANK ROCKET-RBR M80

SPECIFICATION

TYPE	HEAT
LENGTH IN TRAVELING POSITION (mm)	800
LENGTH IN COMBAT POSITION (mm)	1200
MASS (g)	3200
PENETRATION (mm)	> 300 (on homogeneous armour plate)
MUZZLE VELOCITY (m/s)	187
EFFECTIVE RANGE (m)	200
MAXIMUM RANGE (m)	1280
PACKAGE (UNITS)	4
PACKAGE WEIGHT (kg)	25



FUZE	Impact, superquick, piezoelectric with self destruction, (UT PE M80 SP)
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ROCKET WEAPON

90 mm HAND ROCKET LAUNCHER - RBR M79



SPECIFICATION

TYPE	HEAT
LENGTH (mm)	672
MASS (g)	3630
PENETRATION (mm)	>4 50 (on homogeneous armour plate)
MUZZLE VELOCITY (m/s)	245
EFFECTIVE RANGE (m)	350
MAXIMUM RANGE (m)	1960
PACKAGE (UNITS)	3
PACKAGE WEIGHT (kg)	25.3

FUZE Impact, superquick, piezoelectric with self destruction, (UT PE M80 SP)

120 mm LIGHT ANTITANK WEAPON - RBR M90

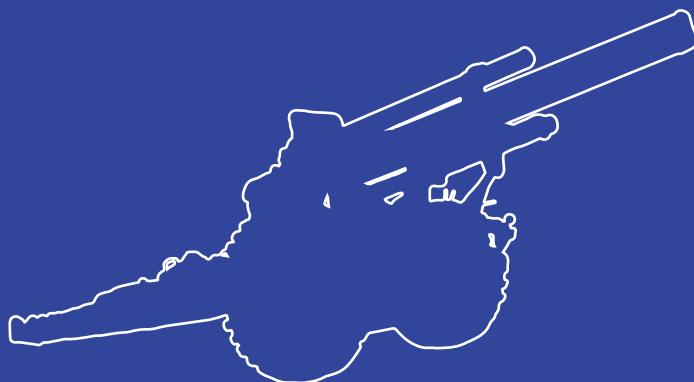


SPECIFICATION

TYPE	HEAT
LENGTH (mm)	1350
MASS (kg)	13
PENETRATION (mm)	>8 00 (on homogeneous armour plate)
MUZZLE VELOCITY (m/s)	205
EFFECTIVE RANGE (m)	250
MAXIMUM RANGE (m)	1960
PACKAGE (UNITS)	2
PACKAGE WEIGHT (kg)	56

FUZE Impact, superquick, piezoelectric with self destruction, (UT PE M80 SP)





ARTILLERY SHELLS

A shell is a payload-carrying projectile that, as opposed to shot, contains an explosive or other filling, though modern usage sometimes includes large solid projectiles properly termed shot.^[1]^[not verified in body] Solid shot may contain a pyrotechnic compound if a tracer or spotting charge is used. Originally, it was called a "bombshell", but "shell" has come to be unambiguous in a military context.

ARTILLERY SHELLS

ROUND 76 mm SEPARATE LOADED for GUN 76 mm M48 B1

NATO DESIGNATION

E

SMOKE

76 MM



DESCRIPTION

	SHELL M55S	HELL M60
PROJECTILE WEIGHT (kg)	6.25	.9
EXPLOSIVE (kg)	0.43	0.45
CARTRIDGE CASE (kg)	1.551	.55
EXPLOSIVE TYPE	TNTW	P
PROJECTILE LENGTH (mm)	3473	47
MUZZLE VELOCITY (m/s)	3983	98
MAXIMUM RANGE (m)	8750	8750
FUZE	UTI M68, UTIU M02, UTIU M03	UTI M68

PACKING

ROUNDS IN CASE

ROSS MASS

WOODEN CASE

3

39 kg

ROUND 100 mm FIXED for GUN 100 mm on TANK T55, SPG 100 mm and COAST GUN 100 mm M87

NATO DESIGNATION

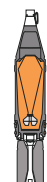
EH

EH

EH

EAT-T

100 MM



DESCRIPTION

	SHELL M63S	HELL M63 P1	SHELL M63 P2S	HELL M69
PROJECTILE WEIGHT (kg)	15.6	15.6	15.6	12.2
EXPLOSIVE (kg)	1.41	1.48	1.58	1
CARTRIDGE CASE (kg)	6956	95	6956	95
EXPLOSIVE TYPE	TNTT	NT	RDX+AI	RDX
PROJECTILE LENGTH (mm)	492	492	492	638
MUZZLE VELOCITY (m/s)	900	900	900	900
MAXIMUM RANGE (m)	20618	20618	20618	3000 (combat range)
FUZE	UTIU M72 B1, UTIU M02, UTIU M03U			T - PE M69

PACKING

ROUNDS IN CASE

ROSS MASS

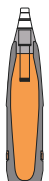
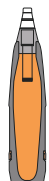
WOODEN CASE

22

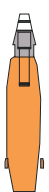
1.8 kg

ARTILLERY SHELLS

ROUND SEMI FIXED for HOWITZERS M56, M18, M2A1, M4 SEMI FIXED for HOWITZERS M56, M02

NATO DESIGNATION		E	SMOKE	HE ER
105 MM				
				
DESCRIPTION	SHELL M1A1	SHELL M60S	HELL M56	
PROJECTILE WEIGHT (kg)	14.9	15	13	
EXPLOSIVE (kg)	2.15	1.85	2.15	
CARTRIDGE CASE (kg)	2.68	2.68	2.68	
EXPLOSIVE TYPE	TNTW	PT	NT	
PROJECTILE LENGTH (mm)	496	496	565	
MUZZLE VELOCITY (m/s)	491	491	675	
MAXIMUM RANGE (m)	11620	11620	4000	
FUZE	UTIU M72 B1, UTIU M02, UTIU M03U			TIU M02, UTIU M03
PACKING	ROUNDS IN CASE			ROSS MASS
WOODEN CASE	2			16.8 kg
				50 kg

ROUND SEMI FIXED FOR HOWITZERS M56/33, M02

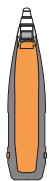
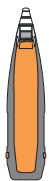
NATO DESIGNATION		HE ERH	E ER-BB
			
		105 mm M56/M02S	105 mm M56/M02
DESCRIPTION		SHELL M56/M02S	HELL M56/M02
PROJECTILE WEIGHT (kg)		13	14.070
EXPLOSIVE (kg)		2.15	2.15
CARTRIDGE CASE (kg)		2.68	2.68
EXPLOSIVE TYPE		TNTT	NT
PROJECTILE LENGTH (mm)		565	565
MUZZLE VELOCITY (m/s)		6756	70
MAXIMUM RANGE (m)		14000	17000
FUZE		UTIU M02, UTIU M03	
PACKING		ROUNDS IN CASE	GROSS MASS
SHELL M56/M02W		2	50 kg

ARTILLERY SHELLS

ROUND 122 mm SEPARATE LOADED for HOWITZERD -30, D30J and SP 2S1



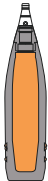
122 MM

NATO DESIGNATION	EH	ES	MOKES	MOKE
				
DESCRIPTION	SHELL TF-462A1S	HELL TF-462A1	M60M	60
PROJECTILE WEIGHT (kg)	21.882	1.88	21.762	1.76
EXPLOSIVE (kg)	3.60	3.60	3.60	3.73
CARTRIDGE CASE (kg)	3.66	3.66	3.66	3.66
EXPLOSIVE TYPE	TNTT	NT	WP	WP
PROJECTILE LENGTH (mm)	561	561	561	561
MUZZLE VELOCITY (m/s)	565	690	565	690
MAXIMUM RANGE (m)	128401	5300	128401	5300
FUZE	UTIU M72 B1, UTIU M02, UTIU M03U		TIU M72 B1	
PACKING	ROUNDS IN CASE			ROSS MASS
WOODEN CASE	2			18 kg

ROUND 122 mm SEPARATE LOADED for HOWITZER M38

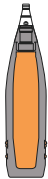
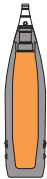


122 MM

NATO DESIGNATION		E	SMOKE
122 MM			
	DESCRIPTION	SHELL TF-462A1M	60
	PROJECTILE WEIGHT (kg)	21.882	1.88
	EXPLOSIVE (kg)	3.60	3.60
	CARTRIDGE CASE (kg)	2.94	2.94
EXPLOSIVE TYPE	TNTW	P	
PROJECTILE LENGTH (mm)	561	561	
MUZZLE VELOCITY (m/s)	5155	15	
MAXIMUM RANGE (m)	11800	11800	
FUZE	UTIU M72 B1, UTIU M02, UTIU M03	UTIU M72 B1	
PACKING		ROUNDS IN CASE	ROSS MASS
WOODEN CASE		2	18 kg

ARTILLERY SHELLS



ROUND 125 mm SEPARATE LOADED for TANK GUN D-81, TM (2A46)					
NATO DESIGNATION		H	E	HEAT-TA	PFSDS-T
	125 MM				
	DESCRIPTION		SHELL M86 P1	SHELL M88S	HELL M88
	PROJECTILE WEIGHT (kg)		23	19	3.66
	EXPLOSIVE (kg)		3.35	1.76	/
	CARTRIDGE CASE (kg)		1381	38	/
	EXPLOSIVE TYPE		TNT / RDXH	MX	/
	PROJECTILE LENGTH (mm)		675	678	591
	MUZZLE VELOCITY (m/s)		8509	05	1800
	MAXIMUM RANGE (m)		122201	0102	120
FUZE		UTIU M85 P1U		T - PE M87 P1	/
PACKING			ROUNDS IN CASE		
WOODEN CASE			1		

ROUND 130 mm SEPARATE LOADED for GUN M-46



130 MM

NATO DESIGNATION

H

E

130 MM




DESCRIPTION	SHELL M79	SHELL M79
PROJECTILE WEIGHT (kg)	33.40	33.40
EXPLOSIVE (kg)	3.64	3.64
CARTRIDGE CASE (kg)	11.35	6.75
EXPLOSIVE TYPE	TNTT	NT
PROJECTILE LENGTH (mm)	6716	71
MUZZLE VELOCITY (m/s)	9307	05
MAXIMUM RANGE (m)	274901	3310
FUZE	UTIU M72 B1, UTIU M02, UTIU M03	

PACKING

ROUNDS IN CASE

GROSS MASS

WOODEN CASE

2

18 kg



ARTILLERY SHELLS

ROUND 152 mm, SEPARATE LOADED for GUN-HOWITZER D-20



152 MM

NATO DESIGNATION

HE

HE



DESCRIPTION

SHELL OF-540

SHELL OF-540

PROJECTILE WEIGHT (kg)

43

43

EXPLOSIVE (kg)

5.86

5.86

CARTRIDGE CASE (kg)

7.50

7.50

EXPLOSIVE TYPE

TNT

TNT

PROJECTILE LENGTH (mm)

7007

00

MUZZLE VELOCITY (m/s)

655

511

MAXIMUM RANGE (m)

17400

13400

FUZE

UTIU M72 B1, UTIU M02, UTIU M03

PACKING

ROUNDS IN CASEG

ROSS MASS

WOODEN CASE

2

18 kg

ROUND 155 mm, for HOWITZERS M198, FH70, FH77, M109 A2 and GUN 45



155 MM

NATO DESIGNATION

ERFB/BB

ERFBH

E



DESCRIPTION

PROJECTILE WEIGHT (kg)

47.6

45.544

2.6

EXPLOSIVE (kg)

8.71

8.71

8

CARTRIDGE CASE (kg)

/

/

/

EXPLOSIVE TYPE

TNT / RDX

TNT / RDX

TNT

PROJECTILE LENGTH (mm)

861

8438

07

MUZZLE VELOCITY (m/s)

925 (52 cal.)

25 (52 cal.)

925 (52 cal.)

MAXIMUM RANGE (m)

41850 (52 cal.)

34000 (52 cal.)

32000 (52 cal.)

FUZE

UTIU M02, UTIU M03



POLICE PROGRAM

SIGNAL AMMUNITION 26,5 mm ABC/LP 57

26,5 MM



DESIGNATION	ABC LP 57L	P 57 PARACHUTEW	HITE LP 57	RED LP 57	GREEN LP 57S	MOKE LP 57
DESCRIPTION / MODEL						
LENGTH (mm)	1701	55	80	80	80	80
HEIGHT OF CLIMBING (m)	200±25	85±151	20±20	120±20	120±20	120±20
BURNING TIME (s)	6±1.5>	12	8±1.5	8±1.5	8±1.5	/
PIPE DURATION (s)	6±1.5/	////				
LIGHT INTENSITY (Cd)	10 000	20 000	20 000	20 0001	0 000/	
COLOR SATURATION	/>	78%<	58%	< 70%<	57%	/
MIDDLE WAVE LENGTH	/	589±35	80±3	609±3	554±3	/
FLARE TYPE	/y	elloww	hite	redg	reen	violet
PACKING	BOXES IN CASE	CARTRIDGES IN BOX		DIMENSIONS G		ROSS MASS
CARDBOARD BOX IN WOODEN CASE	50	10		814 x 380 x 268		46 kg

CARTRIDGE 38 MM

DESIGNATION	ILLUMINATION	ILLUMINATION	SIGNAL	RUBBER BALLS	SINGLE BATON RUBBER	STUN
DESCRIPTION / MODEL	ONE PART	THREE PART	WHITE/RED/ GREEN			
LENGTH (mm)	70	70	70	1231	23	137.5
MAXIMUM HEIGHT (m)	70	70	80	///		
BURNING TIME (s)	55		5	///		
LIGHT INTENSITY (Cd)	3 x 120 0003	x 120 0003	x 120 000/	//		
MASS OF CARTRIDGE (g)	//		/1	20	1801	90
NUMBER OF BALLS (pcs.)	//		/2	8/		/
MAX RANGE (m)	//		/1	50	100/	
SOUND INTENSITY (dB)	//		///			120
PACKING	BAGS IN CASE		CARTRIDGES IN BAG			
POLYETHYLENE BAGS IN CARDBOARD2	01		0			



HAND GRENADE - SMOKE, STUN, FLASH

DESIGNATION

SMOKE

STUN

STUN AND FLASH

45 MM



DESCRIPTION / MODEL

LENGTH (mm)	1301	30	130
DELAY TIME (s)	333		
SMOKE TIME (s)	60	//	
MASS OF GRENADE (g)	2401	80	180
LIGHT INTENSITY (Cd)	//		200 000
SOUND INTENSITY (dB)	/1	20	120

PACKING

BAGS IN CASE

GRENADES IN BAG

GROSS MASS

POLYETHYLENE BAGS IN WOODEN CASE

361

17 kg

SHOT CARTRIDGE ILLUMINATING

DESIGNATION

ILLUMINATING

26,5 MM



DESCRIPTION / MODEL

LENGTH (mm)	114
WEIGHT (g)	90
BURNING TIME OF ILLUMINATING SIGNAL (s)	min 15
LIGHT INTENSITY OF THE ILLUMINATING SIGNAL (Cd)	min 10 000
SOUND SIGNAL FORCE (dB)	min 115
SOUND SIGNAL FORCE (dB)	min 10

PACKING

BOXES IN CASE

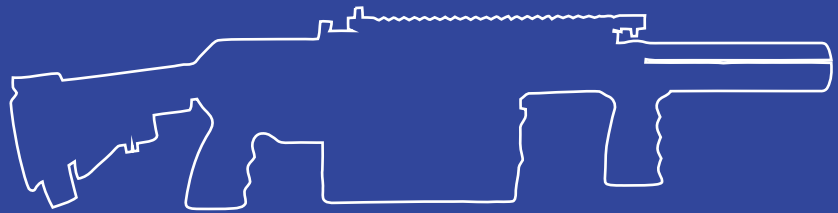
GROSS MASS

WOODEN BOXES IN WOODEN CASE

43

0 kg





GRENADE LAUNCHERS

Grenade launcher is a weapon that fires a specially-designed large-caliber projectile, often with an explosive, smoke or gas warhead. The most common type are man-portable, shoulder-fired weapons issued to individuals, although larger crew-served launchers are issued at higher levels of organisation by military forces.

GRENADE LAUNCHERS



HAND GRANADE LUNCHER FLIP RBGP 38/1 MM M09-00; 38-55/1 MM M09-00; RBGP 40/1 MM

DESCRIPTION / MODEL	RBGP 38/1 mm M09-00	RBGP 38-55/1 mm M09-00	RBGP 40/1 mm M08-00
CALIBER	38 mm	38 mm	40 mm
TUBE	smooths	mooth/	
TUBE LENGTH	250 mm	300 mm	250 mm
CHARGE	1 shell1	shell	1 shell
THE LENGTH OF THE DRUM	130 mm	140 mm	130 mm
TYPE OF FIRE	single	singles	ingle
TRIGGER MECHANISM	double action	double action	double action
WEIGHT WITHOUT AMMUNITION	4 kg4	.3 kg3	.8 kg
HEIGHT	< 250 mm	< 250 mm	< 250 mm
WIDTH	<100 mm	<160 mm	<100 mm
AMMUNITION	38 mm	38/ 55mm4	0 mm
GUNPOINT DEVICES	mechanical	mechanical	mechanical
GUNPOINT PARTITION	50 - 150 m	50 - 150 m	50 - 350 m

GRENADE LAUNCHERS



REVOLVER GRANADE LUNCHER RBGR 40/6 MM M07

DESCRIPTION / MODEL	RBGR 40/6 MM M07
CALIBER	40 mm
TUBE	smooth
TUBE LENGTH	250 mm
CHARGE	6 shells
THE LENGTH OF THE DRUM	140 mm
RATE OF FIRE	12 shells / min.
TRIGGER MECHANISM	double action
WEIGHT WITHOUT AMMUNITION	6.8 kg
HEIGHT	< 355mm
WIDTH	<170mm
AMMUNITION	40x46 mm
GUNPOINT DEVICES	reflective type
GUNPOINT PARTITION	50 - 150 m

GRENADE LAUNCHERS



DESCRIPTION / MODEL	RBGR 38/6 MM M06
CALIBER	38 mm
TUBE	smooth
TUBE LENGTH	250 mm
CHARGE	6 shells
THE LENGTH OF THE DRUM	130 mm
RATE OF FIRE	10 shells / min.
TRIGGER MECHANISM	double action
WEIGHT WITHOUT AMMUNITION	6.5 kg
HEIGHT	< 335mm
WIDTH	<160mm
AMMUNITION	38 mm
GUNPOINT DEVICES	mechanical
GUNPOINT PARTITION	50 - 150 m

GRENADE LAUNCHERS

ROCKET PROPELLED GRENADE LAUNCHER - RBR7

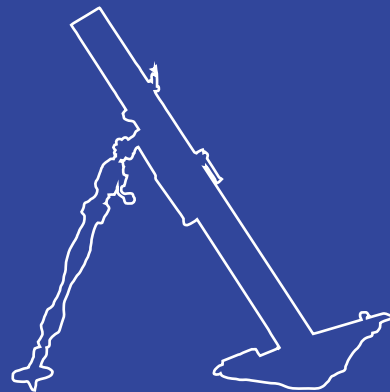


DESCRIPTION / MODEL	RBR7
CALIBER	40 mm
OVERALL LENGHT RPG7-PPT	960mm
CALIBER GRENADE	85mm/70mm
LENGTH GRENADES WITH A PRIMER	925mm/940mm
MUZZLE VELOCITY	120m/sec/140m/sec
RATE OF FIRE	4-6 round per minute
EFFECTIVE RANGE	500m
WEIGHT WITHOUT AMMUNITION	7kg
TYPE OF FIRE	single shot
THE TRIGGER MECHANISM	indirect effect
TRIGGER PULL	up to 45N
THE FIRING PIN (RETRACTED POSITION)	-0,5mm min.
THE FIRING PIN (THE EXTENDED POSITION)	+1,6 do +2mm



MORTARS

A mortar is a device that fires projectiles at low velocities and short ranges. The mortar has traditionally been used as a weapon to propel explosive mortar bombs in high-arc ballistic trajectories.



MORTARS

MORTAR 60 mm M57

MORTAR 60 mm M06

MORTAR 60 mm M06 COMMANDO



DESCRIPTION			
CALIBER	60.75 mm	60.75 mm	60.75 mm
WEAPON MASS	18.5 kg	23.5 kg	7.6 kg
TUBE LENGTH WITH STAND	725 mm	1366 mm	780 mm
ANGLE OF FIRE	45° - 85°	45° - 85°	-5 ° - 85°
FIRE RATE	20 - 25 rds/min	20 - 25 rds/min	20 - 25 rds/min
MAX RANGE	2537 m	5200 m1	600 m
MIN RANGE	74 m1	20 m	85 m
MAX TUBE PREASURE	422 bar	650 bar	250 bar
GUNPOINT DEVICES	NSB-3, NSB-1	NSB-3m	echanical NS
OPERATORS NUMBER	3 (4)3		1+1



MORTARS

MORTAR 81 mm M69BKM

ORTAR 82 mm M69A

MORTAR 120 mm M74



DESCRIPTION			
CALIBER	81.4 mm8	2.14 mm1	20 mm
WEAPON MASS	45 kg4	5 kg	120 kg
TUBE LENGTH WITH STAND	1324 mm	1374 mm	1692 mm
ANGLE OF FIRE	45°- 85°	45°- 85°	45°- 85°
FIRE RATE	20 - 25 rds/min	20 - 25 rds/min1	2 rds/min
MAX RANGE	4943 m	6050 m	6440 m
MIN RANGE	88 m	120 m	85 m
MAX TUBE PREASURE	610 bar	650 bar8	35 bar
GUNPOINT DEVICES	NSB-3	NSB-3	NSB-4B
OPERATORS NUMBER	44		1+4



OCTOGEN (HMX)

Octogen (HMX) is used exclusively for military purposes to implode fissionable material in nuclear devices, as a component of plastic-bonded explosives, as a component of rocket propellant, and as a high explosive buster charge.



GEN (RDX)

Hexogen (RDX) can be used alone as a base charge for detonators or mixed with another explosive such as TNT, which produce a bursting charge for aerial bombs, mines, and torpedoes or as an ingredient in plastic bonded explosives.



PENTHRITE (PETN)

Penthrite (PETN), one of the most powerful and most brisant explosive, is used in the manufacture of detonating fuse, detonators, industrial explosive slurries and plastic explosives. If phlegmatized with wax, it is used in various types of ammunition.



TRINITROTOLUENE (TNT)

Military grade TNT is widely used as a bursting charge for high explosive shells, aircraft bombs, grenades, naval mines and etc. It is also used in boosters, detonators, demolition charges and as an ingredient in slurries and for mining industries.



ANFO EXPLOSIVE

ANFO has a wide variety of applications in dry hole blasting conditions. It is one of the most cost effective blasting agents available for use in large hole diameter mining through to small hole diameter quarrying. ANFO provides excellent heave energy.



BOOSTERS

Boosters are made of cast TNT/RDX mixtures with an integrated primer charge of pressed tetryl or PETN which produces high velocity of detonation and detonating pressures, ensuring reliable initiation of bulk and cartridge explosives.



HAND THROWN GRENADE M2, CS

Hand thrown grenade M2, CS is designed for a special military and police units in anti riot control operations for temporary incapacitating of unprotected crowd in open and closed area. When thrown to a target, contaminate area and temporary disable crowd. Causes hard irritation, teasing of eyes and mucous membrane, plenty tearing, cough, uneasiness breath and choking without injury.



HAND THROWN GRENADE M1, CS

Hand thrown grenade M1, CS is designed for a special military and police units in anti riot control operations for temporary incapacitating of unprotected crowd in open and closed area. When thrown to a target, contaminate area and temporary disable crowd. Provokes hard irritation, teasing of eyes and mucous membrane, plenty of tearing, cough, uneasiness breath and choking without injury.



LONG RANGE NEUTRALIZING

Special hand thrown grenade M79 AF-1S is chemical explosive device designed for a special military and police units in anti riot control operations, for temporary incapacitating of unprotected crowd in open and closed area.



CLUSTER (CASSETTE) HAND GRENADE CS

Cluster (cassette) hand grenade CS is chemical device designed for a special military and police units in anti riot control operations for temporary incapacitating of unprotected crowd in open and closed area.



HAND THROWN GRENADE THREE PART, CS

RBT-CS is designed for special military and police units in anti riot control operations for temporary incapacitating of unprotected crowd in open and closed area. When thrown to a target, contaminate area and temporary disable crowd. Provokes hard irritation, teasing of eyes and mucous membranes, plenty of tearing, cough, uneasiness breath and choking without injury.



LAUNCHING-HAND THROWN GRENADE M3, CS

Launching-hand thrown grenade M3, CS is designed for special military and police units in anti riot control operations for temporary incapacitating of unprotected crowd in open and closed area. When thrown to a target, contaminate area and temporary disable crowd. Provokes hard irritation, teasing of eyes and mucous membranes, plenty of tearing, cough, uneasiness breath and choking without injury.



LAUNCHING-HAND THROWN THREE PART GRENADE M1, CS

Launching-hand thrown three part grenade M1, CS is designed for a special military and police units in anti riot control operations for temporary incapacitating of unprotected crowd in open and closed area. When thrown to a target, contaminate area and temporary disable crowd. It provokes hard irritation, teasing of eyes and mucous membranes, plenty of tearing, cough, uneasiness breath and choking without injury.



RAPID SMOKE, CS

Rapid smoke, CS is designed for special military and police units in anti riot control operations, for temporary incapacitating of unprotected crowd in open and closed area. When thrown to a target, contaminates area and temporary disable crowd. It provokes hard irritation, teasing of eyes and mucous membrane, plenty of tearing, cough, uneasiness breath and choking without injury.



HAND THROWN CARTON GRENADE, CS

Hand thrown carton grenade, CS is designed for a special military and police units in anti riot control operations, for temporary incapacitating of unprotected crowd in open and closed area. When thrown to a target, contaminates area and temporary disable crowd. It provokes hard irritation, teasing of eyes and mucous membranes, plenty of tearing, cough, uneasiness breath and choking without injury.



SMOKE HAND GRENADE 1, COLOR BD-1

Smoke hand grenade 1, color BD-1 is designed as signaling and camouflage device, intended for day and night signalization for different applications, for marking of area for landing of planes, for jumping of parachutists, for determination of wind blowing, camouflaging of individuals and groups in one place or in movement, giving signals on land or sea, from floating objects or mountains.



SMOKE HAND GRENADE 2, COLOR BD-2

Smoke hand grenade 2, color BD-2 designed as signaling and camouflage device, intended for day and night signalization for different applications, for marking of area for landing of planes, for jumping of parachutists, for determination of wind blowing, camouflaging of individuals and groups in one place or in movement. Can be used also in practice for handling with irritating devices or for simulation of variable activities at the site.



FLAMABLE HAND THROWN GRENADE BRZ M90

Flamable hand thrown grenade BRZ M90 is designed for a special military and police units applications, in setting fire to technical and military equipment, light bunkers and storage made of wood and earth. Also is applicable in destroying enemy, situated in small and easy flammable bunkers and shelters. Can be used also in practice for handling with irritating devices or for simulation of variable activities at the site.



MASK M2

The M2 protective mask is intended specifically for protection of the eyes, face and respiratory organs of the user against NBC contaminants in the form of gases, vapours, solid and liquid aerosols and dust particles as a result of the use of nuclear, chemical and biological weapons. The mask, together with appropriate filters, provides protection against contamination due to chemical accidents. The mask is used in the atmosphere containing at least 17% oxygen.



MASK M2 F

The M2 F protective mask complete with NBC M2 filter is intended specifically for efficient protection of eyes, face and respiratory organs against NBC contaminants in the state of gases, vapors, solid and liquid aerosols and dust particles.



MASK M2 FV

The M2 FV protective mask is intended for protection of the eyes, face and respiratory organs of the user against NBC contaminants in the form of gases, vapours, solid and liquid aerosols and dust particles as a result of the use of nuclear, chemical and biological weapons. The mask has a built-in water-drinking system, whose capacity for the free leaking of water into the mask is no less than 200 cm³/minute.



B2-G PANORAMA

The B2-G Panorama mask, type: Class 2 according to the SRPS EN 136, together with the appropriate fitted filter (with a screw according to the SRPS EN 148-1) is intended for protection of respiratory organs, face and the eyes against harmful effects of toxic gases, vapours, dust particles and smoke. It is mainly intended for use in chemical industry, i.e. wherever there are harmful gases, vapours, and particles.



MASK M2 F

The M3 mask, complete set is intended for protection of the respiratory organs, face and eyes of the user against NBC contaminants in the form of gases, vapours, solid and liquid aerosols and dust particles. The mask, together with appropriate filters, provides protection against contamination due to chemical accidents. The complete set includes: the M3 facepiece, the M3 filter, the water bottle with a bag.





SINGLE BASED POWDERS

For all kinds of ammunition from 5.56 to 155 mm:

- hunting and sport ammunition
- pistol ammunition
- revolver ammunition
- small arms ammunition (from 5.45 mm cal. to 7.9 mm cal.)
- powders for aircraft and anti-aircraft systems (from 12,7 mm cal. to 57 mm cal.)
- all types of powders for artillery ammunition (from 76 mm cal. to 155 mm cal.)

NC-01

APPLICATION: Blank ammunition

CALIBER: 5,56×45 mm
7,62×39 mm



NC-03

APPLICATION: "Browning"

CALIBER: 7,62 x 25 mm
7,65 mm
9×19 mm



NC-04

APPLICATION: Shot shell
hunting ammunition

CALIBER: 12/70
12/76



NC-08

APPLICATION: 7,62 x 39 mm



NCD-02

APPLICATION: Hunting ammunition

CALIBER: 7,62 mm



NCD-06

APPLICATION: 12,7 x 99 mm "Browning"
20 x 110 mm "Hispano"



NC-26

APPLICATION: 12,7 x 108 mm "DŠK"



NC-48

APPLICATION: 2 A42 2A72 Machine gun

CALIBER: 30 x 165 mm



NC-261

APPLICATION: Machine gun

CALIBER: 14,5 x 114 mm



NC-45

APPLICATION: 40 mm L/70 "Bofors"



NC-49

APPLICATION: 57 mm PAV M70 "Bofors"



NCD-49, NCD-21

APPLICATION: Powder charges

CALIBER: M67, M2A1
105 mm



NC-27, NC-37

APPLICATION: Powder charges

CALIBER: M78, 122 mm
5 46U, 152 mm



NC-44, NC-16

APPLICATION: Powder charge

CALIBER: 125 mm



NCD-27

APPLICATION: Powder charge

CALIBER: M4A2, 155 mm (ZONE 7)



NC-26

APPLICATION: Powder charges

CALIBER: M119A2 155 mm
M119A1 155 mm (ZONE 8)
MC 155 mm (ZONE 8)



NCD-191

APPLICATION: Powder charges

CALIBER: M90, 152 mm
M93, 152 mm, 105 mm,
APFSDS
M203, 155 mm (ZONE 9)
MC, 155 mm (ZONE 9)



NCD-19

APPLICATION: Powder charges

CALIBER: M92, 130 mm
M90, 152 mm
M11, 155 mm (ZONE 10)
MC, 155 mm (ZONE 10)



DOUBLE BASED ROCKET PROPELLANT AND PROPELLANT CHARGES

For all kinds of ammunition from 5.56 to 155 mm:

- Propellant charges of diameter up to 130 mm for rocket motors
- Propellant charges for pyro-charges for ejection of pilot seats
- Propellant charges for HEAT and artillery ammunition
- Rocket motor propellant charges for air target imitator
- Propellant charges for anti-hail systems

PROPELLANT CHARGE FOR 57 MM AIRCRAFT ROCKETS (S-5M AND S-5K)



APPLICATION: The rocket is a part of the 57 mm multi-tube rocket launcher system, on aircrafts MiG-21, MiG-23 and MiG-27 and Mi-17 and Mi-24 helicopters, intended for neutralizing of enemy manpower and armoured vehicles.

MASS: 1.13 (0.88) kg

EFFECTIVE (POINT BLANK) RANGE: 3.000 to 4.000 m

PROPELLANT CHARGE FOR 80 MM AIRCRAFT ROCKET „S-8KOM” AND „S-8KO”



APPLICATION: The rocket is a part of the LRSV 128 mm multi-tube rocket launcher system and self-propelled, multi-tube rocket launcher LRSV 128 mm, M63/94, intended for neutralizing of enemy manpower, weaponry and lightly armoured targets.

MASS: 8.23 kg

EFFECTIVE (POINT BLANK) RANGE: 12.700 m

PROPELLANT CHARGE FOR 122 MM ROCKET „GRAD”



APPLICATION: The rocket is a part of the LRSV 122 mm „GRAD” multi-tube rocket launching system, intended for neutralizing of enemy manpower, weaponry and lightly armoured targets.

MASS: 20.3 kg

EFFECTIVE (POINT BLANK) RANGE: 20.500 m

PROPELLANT CHARGE FOR 128 MM ROCKET, M08 „PLAMEN-D”



APPLICATION: The rocket is a part of the LRSV 128 mm multi-tube rocket launcher system and self-propelled, multi-tube rocket launcher LRSV 128 mm, M63/94, intended for neutralizing of enemy manpower, weaponry and lightly armoured targets.

MASS: 8.23 kg

EFFECTIVE (POINT BLANK) RANGE: 12.700 m

PROPELLANT CHARGE OF HAND ROCKETLAUNCHER 120 MM, M91 “POS-BD”



APPLICATION: The hand rocket launcher is an individual infantry means for anti-armour battle at close distances, penetration of 700 mm of armour steel.

MASS:	0.71 kg
EFFECTIVE (POINT BLANK) RANGE:	350 m

PROPELLANT CHARGE FOR 128 MM ROCKET, M63 „PLAMEN-A”



APPLICATION: The rocket is a part of the LRSV 128 mm multi-tube rocket launcher system and self-propelled, multi-tube rocket launcher LRSV 128 mm, M63/94, intended for neutralizing of enemy manpower, weaponry and lightly armoured targets.

MASS:	4.76 kg
EFFECTIVE (POINT BLANK) RANGE:	8.600 m

PROPELLANT CHARGE FOR ANTI-HAILROCKETS „PP-6TS”, „PP-6TK”, „PP-6”, „PP-8”



APPLICATION: For timely and accurate introduction of reagent into hail-bearing clouds by which conditions are created for prevention of free formation of hail grains, where artificial crystallization cores are formed and instead of large hail grains crystals of small dimensions are created.

MASS:	1.70 (1.95) kg
EFFECTIVE (POINT BLANK) RANGE:	6.000 m and 8.000 m

PROPELLANT CHARGES FOR HEAT PROJECTILES „PG-7V”, „PG-7VM” AND „PG-9V”



APPLICATION: The hand grenade launcher is an individual infantry weapons for anti-armour battle at close distances, penetration of 330 mm to 500 mm of armour steel.

MASS:	0.14, 0.22, 0.47 kg
EFFECTIVE (POINT BLANK) RANGE:	900 m, 1.300 m

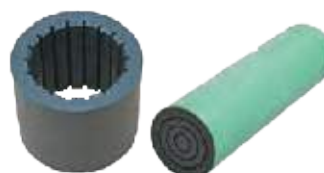
PROPELLANT CHARGE FOR 57 MM AIRCRAFT ROCKETS (S-5M AND S-5K)



APPLICATION: The hand rocket launcher is an individual infantry means for anti-armour battle at close distances, penetration of 300 mm of armour steel.

MASS:	0.130 kg
EFFECTIVE (POINT BLANK) RANGE:	250 m

PROPELLANT CHARGE FOR 80 MM AIRCRAFT ROCKET „S-8KOM” AND „S-8KO”



APPLICATION: For anti-armour battle at distances up to 3000 m. Launched from a launching box or from the “POLO” vehicle, as well as from the “Gazela” helicopter. Rocket guidance is manual or semi-automatic. Rocket penetration is 560 mm behind an ERA.

MASS:	0.68 kg + 1.5 kg
EFFECTIVE (POINT BLANK) RANGE:	3.000 m

SPHERICAL POWDERS

Spherical powders has two energy components: nitrocellulose and nitroglycerine. It is used as a commercial powder (in hunting and hunting am-munition) for small arms and for aircraft and anti-aircraft ammunition. "Milan Blagojevic – Namenska" A.D. has the most modern process technology of spherical powder production. It is based on a continuous procedure which has significant advantage to a batch one.

POWDER TYPE

POWDER PURPOSE

SB 501	Shotshell & Hunting Ammunition Cal. 12/70 Cal. 12/76 50 g Magnum
SB 502	
SB 503	
SB 504	
SB 505	
SB 506	



POWDER TYPE

POWDER PURPOSE

SB 416	BLANK POWDERS 5.56 x 45 mm BLANK 7.62 x 51 mm BLANK 7.62 x 39 mm BLANK
SB 420	9 mm PA BLANK 9 x 17 mm killer CARTRIDGES AND INDUSTRIAL PURPOSES



POWDER TYPE

POWDER PURPOSE

SB 510	5.56 x 45 mm
SB 511	



POWDER TYPE

POWDER PURPOSE

SB 520	7.62 x 51 mm NATO
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ADVANTAGES

- Superior chemical stability
- Uniformity of loading
- Decreased powder charge
- Increased projectile velocity
- More uniform burning
- Lower flame temperature
- Improved barrel operation life

ADVANTAGES OF THE CONTINUOUS PROCESS:

FLEXIBILITY:

Powder p roduction m eets differ ent ballistic r equirements and more uniform distribution of grain size is achieved.

SAFETY:

Process is remote controlled and the biggest part of processing i s performed under water.

LOW COSTS:

Smaller investment funds and lower production costs.

POWDER TYPE

POWDER PURPOSE

SB 620

9 mm



POWDER TYPE

POWDER PURPOSE

SB 710

12.7 mm BROWNING



POWDER TYPE

POWDER PURPOSE

SB 720

10 × 102 mm NATO VULCAN



POWDER TYPE

POWDER PURPOSE

SB 508

Powder for grenades



POWDER TYPE

POWDER PURPOSE

SB 440

22 Hornet, 223 Remington, 243 Winchester, 270 Winchester, 7 mm Remington Magnum, .308 Winchester, 30-06 Springfield, 300 Winchester Magnum, 7.62 x 39 mm, 338 Lapua Magnum

SB 515

SB 530

SB 630



POWDER CHARGES

CONVENTIONAL IN CLOTH BAG FOR SYSTEMS FROM 105 mm TO 155 mm

105 MM: M2 M67

105 mm HOWITZER:

M2A2, M101/M101A1, M102, M2A1, M18/61, M56



122 MM: M2 M78 FULL CHARGE

122 mm HOWITZER:

D-30 Reduced charge



122 MM: M78 REDUCED CHARGE

FULL CHARGE

122 mm Howitzer: D-30



130 MM: FULL VARIABLE CHARGE, REDUCED VARIABLE CHARGE

130 mm GUN:

M46 Full & Reduced charge



152 MM: M93, M90, Ž-546U

152 MM HOWITZER:

D-20



155 MM: M3A1, M4A2, M119A1, M119 A2 M203 M11

155 mm HOWITZER SYSTEMS:

M1, M65, M198, GC-45, NORA(39 cal. / 45 cal. / 52 cal.)



MONO-BLOCK POWDER CHARGES FOR 155 MM HOWITZER “NORA B52”

MC ZONE 8 FOR 155 MM (POWDER NCD-26)

TECHNICAL DATA:

- Projectile M107
- $V_0 \sim 680$ m/s; $P_m \sim 1700$ bar;
- Range 18.400 m



MC ZONE 9 FOR 155 MM (POWDER NCD-191)

TECHNICAL DATA:

- Projectile ERFB
- $V_0 \sim 820$ m/s; $P_m \sim 2600$ bar;
- Range 26.630 m



BI-MODULAR POWDER CHARGES

FOR 155 mm HOWITZER SYSTEMS



MC ZONE 10 FOR 155 MM (POWDER NCD-19)

TECHNICAL DATA:

- Projectile ERFB-BB
- $V_0 \sim 920$ m/s; $P_m \sim 3.250$ bar;
- Range 41.100 m



COMBUSTIBLE COMPONENTS

CHEMICAL COMPOSITION:

- Nitrocellulose
- Trinitrotoluene

