



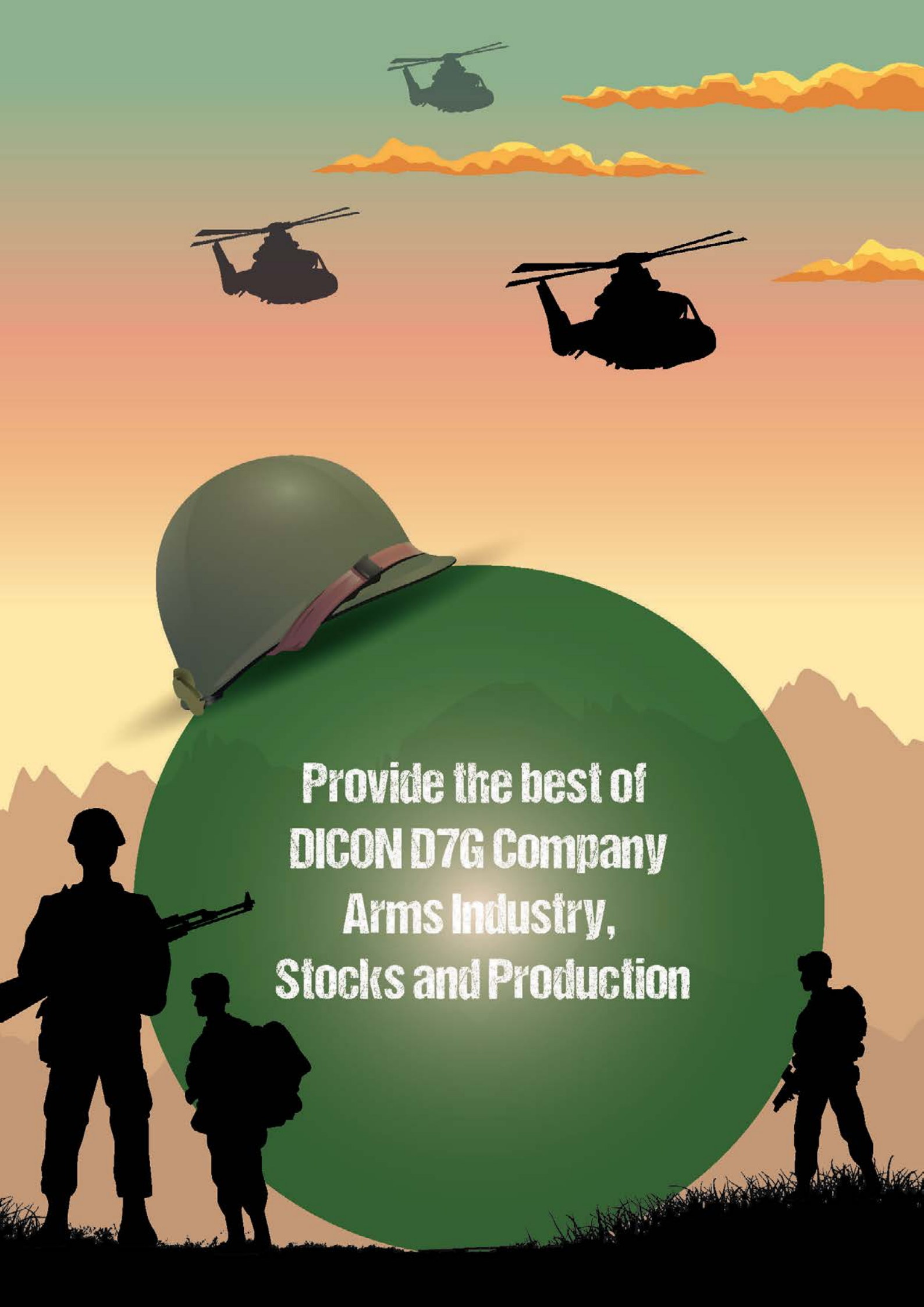
*Sustaining Global
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Products and Services

**Sustaining
Defence Production,
enhancing transfer
of technology.**





**Provide the best of
DICON D7G Company
Arms Industry,
Stocks and Production**

Capabilities



ACQUISITION

- IDENTIFY DEMAND
- PROVIDE SOLUTIONS
- PROPOSAL
- CONTRACT
- SOURCING

- EXPERIENCED STAFF
- SUPPLY NETWORK
- TRUSTED PARTNERS
- PROVEN SUPPLIERS
- VALUE ADDED SERVICES



QUALITY CONTROL

- DEVELOP TDP'S
- VALIDATE SPECS
- IN PROCESS AUDITS
- MATERIAL TESTING
- INSPECTIONS

- SUBJECT MATTER EXPERT
- FACTORY ACCESS
- THIRD PARTY LABS
- BU MIL TRAINED STAFF
- MOD RANGE ACCESS



TRANSPORTATION

- MULTI-MODAL
- MATERIAL PREPARATION
- WAREHOUSING
- SCHEDULING
- AUTHORIZATION

- AIR FREIGHT
- OCEAN FREIGHT
- INTER COMMUNITY
- HAZMAT SPECIALISTS
- COMPLIANCE

COMPLIANCE

- DOMESTIC LICENSING
- EXPORT LICENSING
- TRANSIT PERMITS
- POLICE PERMITS
- DVC'S

- BU LICENSING EXPERTS
- COMPLIANCE OFFICER
- FOREIGN AGENTS
- CUSTOMER RELATIONS
- CUSTOMS COMPLIANCE

Assault Rifles



Submachine Guns



Light Machine Guns



Sniper Rifles



Machine Guns



Automatic Grenade Launchers



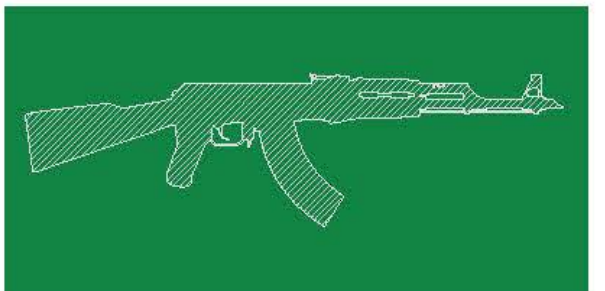
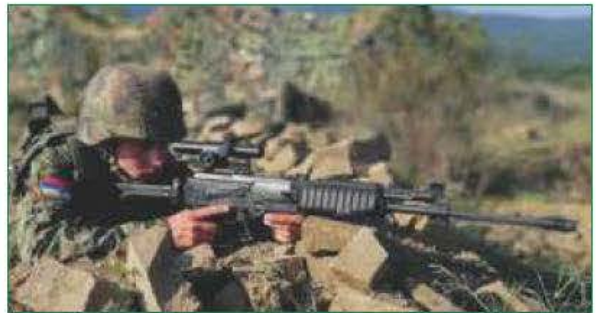
Underbarrel Grenade Launchers



Pistols



Assault Rifles



ASSAULT RIFLES



ATA 1955 BLACK



ATA 1955 FDE



**CALIBER
5.56 NATO**



Technical Specifications APT556

	APT556 (14.5")	APT556 (10.5")
CALIBER	5.56x45mm NATO	5.56x45mm NATO
TYPE	Gas Operated	Gas Operated
BARREL LENGTH	370mm (14.5")	270mm (10.5")
BARREL	6 Grooved-Land	6 Grooved-Land
OVERALL LENGTH	795mm - 895mm (31.3" - 35.3")	695mm - 795mm (27.4" - 31.3")
WIDTH	65,6mm (2.58")	65,6mm (2.58")
HEIGHT	185mm (7.28")	185mm (7.28")
WEIGHT	3480g (7.7 lbs)	3350g (7.4 lbs)
MAGAZINE CAPACITY	30 Rounds (AR15 Compatible)	30 Rounds (AR15 Compatible)
SHOOTING TYPE	Semi-Auto / Full-Auto	Semi-Auto / Full-Auto
TRIGGER PULL WEIGHT	2.5kg - 4kg (5.5 lbs - 8.8 lbs)	2.5kg - 4kg (5.5 lbs - 8.8 lbs)

MDC AR-15 RIFLE



Technical Specifications



Caliber	5,56 x 45mm NATO
Action	Gas operated full-auto
Barrel Length	0.5 inch - 14.5 inch - 16 inch
Barrel Twist	0.5 inch - 14.5 inch - 16 inch
Maximum effective range	550 meters
Safety	Standard safety
Origin	Türkiye

MDC AR-15 RIFLE



AR 15 rifles are a popular option for home defense and sport shooting. We carry a variety of the best AR15's and carbines.

A light weight, gas-operated semi-automatic and full-automatic rifle



AR-15 RIFLE

MDC 9MM

SUBMACHINE GUN

Submachine gun, a lightweight automatic small-arms weapon chambered for pistol cartridges and fired from the hip or shoulder.

A magazine-fed, Semi-Auto and Automatic, designed to fire handgun cartridges.



Barrel length	6" (155mm)
Barrel Twist	1:10
Caliber	9x19 mm NATO
Overall Length	522 mm without muzzle break 545 mm with muzzle break
Weight (w/o optics)	2,4 kg
Height without magazine	198 mm
Width	55mm
Operation	Blowback, Closed Bolt
Foward Assist	No
Trigger Pull Weight	3 Kg
Fire Selector	Safe, Semi-Automatic Full-Automatic
Standart Magazine Capacity	17 Rounds - 33 Rounds
Magazine Weight	17 Rounds 76 gr./33 Rounds 127 gr.
Muzzle Velocity (approx.)	420 m/s
Rate of Fire	Approximite ly 800-900 RPM
Barrel Life	15 000 rounds minimum
Parts Life	12 000 rounds minimum
Other	Stainless stell small parts, improved low mass bolt, long-life springs
Origin	TÜRKIYE

MPT-76 (7.62 mm x 51 NATO)

NATIONAL INFANTRY RIFLE



Diameter	7.62 mm x 51 NATO
Working Method	Gas Piston Movable Rotary Head Locking
Initial Speed	800 m/sec
Distribution	4 MOA
Firing Sensitivity	20-30 Newton
Magazine Capacity	20
Weight	4200 g
Length	900/1000 m
Effective Range	600 meters
Barrel Length	406 mm
Shooting Speed	700 beats / mins
Ignition Type	Semi-Automatic / Fully Automatic
Butt	Adjustable, 12 Levels , 100 mm
Number Of Grooves Set	6

MPT-55 / 55K (5.56 mm x 45 NATO)

INFANTRY RIFLE



MPT-55

MPT-55K

Calibre	5.56 mm x 45 NATO	5.56 mm x 45 NATO
Working Principle	Short Stroke, Gas Operated Rotary Bolt Action	Short Stroke, Gas Operated Rotary Bolt Action
Muzzle Velocity	850 m/s	800 m/s
Accuracy	4 MOA	4 MOA
Trigger Force	20-30 Newton	20-30 Newton
Magazine Capacity	30	30
Weight	3300 gr	3000 gr
Length	800/884 mm	730/814 mm
Effective Range	400 m	400 m
Barrel Length	368.5 mm	279.4 mm
Rate of Fire	800 ± 100 rds/min	800±100 rds/min
Type of Fire	Semi/Full Automatic	Semi/Full Automatic
Buttstock	Telescopic, 84 mm, 6 stages	Telescopic, 84 mm, 6 stages
Groove	6	6

JMK BORA - 12 (7.62 mm x 51 NATO)

SNIPER RIFLE



Calibre	7.62 mm x 51 NATO
Working Principle	Bolt Action
Muzzle Velocity	860 m/s (Lapua Hps 170 Grain)
Accuracy	0.3 MOA
Trigger Force	15-25 Nweton
Magazine Capacity	10
Weight	6400 g
Lenght	1220 / 1265 mm
Effective Range	1200 m
Barrel Length	660 mm
Buttstock	Telescobic, 45 mm, 4 stages
Type of Fire	Single
Groove	4

KNT-76 (7.62 mm x 51 NATO)

SEMI-AUTOMATIC SNIPER RIFLE



Calibre	7.62 mm x 51 NATO
Working Principle	Gas Operated Rotary Bolt Action
Muzzle Velocity	805 m/s (Lapua Hps 170 Grain)
Accuracy	1.5 MOA
Trigger Force	15-25 Newton
Magazine Capacity	20
Weight	5000 g
Lenght	1030/1110 mm
Effective Range	800 m
Barrel Length	508 mm
Type of Fire	Semi Automatic
Buttstock	Telescobic, 80 mm, 5 stages
Groove	4

MP5 A3 (9 mm x 19)

SUBMACHINE GUN

Calibre	9 mm x 19 Parabellum
Muzzle Velocity	350 m/s
Magazine Capacity	30
Length	525/690 mm
Weight	3025 g
Groove	6
Effective Range	100 m
Barrel Length	225.3 mm
Rate of Fire	800 rds/min
Type of Fire	Semi/Full Automatic
Buttstock	Retractable



Assault rifle M21 A, in NATO caliber 5.56x45 mm, was designed on the basis of Kalashnikov system. It is a gas operated rifle, and locking system is rotating bolt.



Assault Rifle M21 A



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 M21 S was developed from M21 A, 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 S



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 M21 ABS was developed from M21 A, with shorter barrel. Good solutions for the ergonomics, with excellently balanced weight, provide mild recoil and easy control of fire.



Assault Rifle M21 ABS



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
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



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

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 AB2



Assault Rifle M70 AB3

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

Assault rifle M21 S was developed from M21 A, with shorter barrel. Good solutions for the ergonomics, with excellently balanced weight, provide mild recoil and easy control of fire.



Assault Rifle M77



Telescopic Stock



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



Polymer Magazine



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

Optical sight



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

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.

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

Submachine gun M21 is a compact weapon, of light weight and it fulfils 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



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

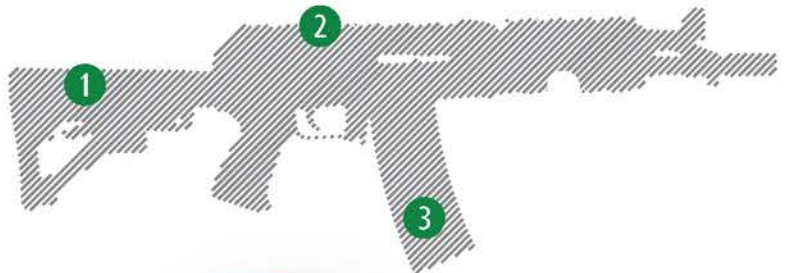


Submachine gun M92

Telescopic Stock



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



Underbarrel Grenade Launcher



At customer's request in set can be included Underbarrel grenade launcher BGP 40 mm, and Underbarrel grenade launcher BGP 40x60 mm.

Polymer Magazine



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

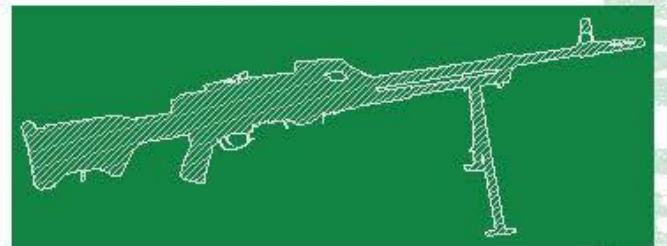
TECHNICAL CHARACTERISTICS

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



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 functions on the Klashinkov principle. Built-in-bipod, which can be folded, facilities aiming and firing during burst fire.



Light Machine gun M72 B1



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 PKM 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.

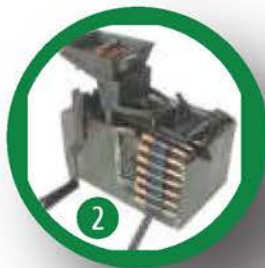
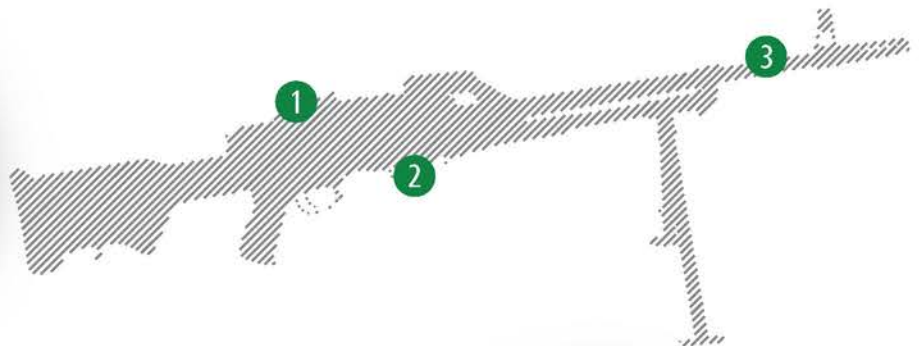


Light Machine gun PKM 7,62 x54 mm

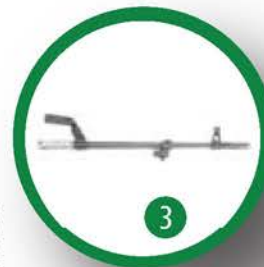
Optical Sight with Mount



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



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



Spare Barrel

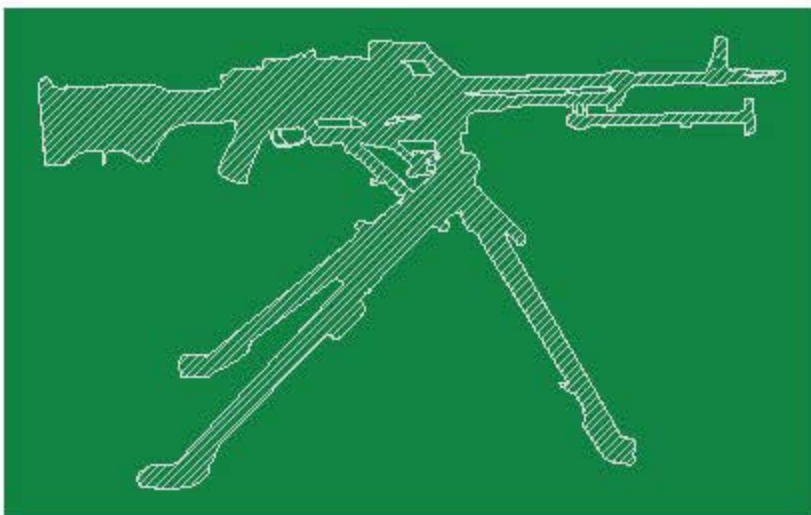
At customer's request in set can be included spare barrel.

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
PKM	7.62x54 mm	240 mm	603 mm	8,8 kg	0,35 kg	700-800 rds/min

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 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 a 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.



Submachine gun M86

Machine gun M86 is intended for mounting on tanks and combat vehicles, as a gun fixed 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
M86	7.62x54 mm	304.8 mm	780 mm	11,6 kg	250 rds	700-800 rds/min

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



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 accuracy, fitted with a telescopic sight and chambered for a military centerfire cartridge.



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



Sniper Rifle M91

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

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 polymer.



Sniper Rifle M07 AF



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.

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.



Sniper Rifle M07 AS



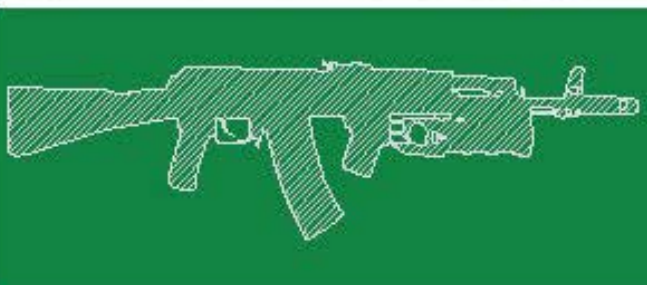
Anti-Material rifle M12 Black Spear

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	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

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	12.7x108 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.

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 M70



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.

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.



Underbarrel Grenade Launcher BGP-40x46 mm



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 1,700 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



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

REPKON (40 MM AUTOMATIC)

GRENADE LAUNCHER "RDS40-AGL"



Technical Specifications

Maximum Range	2000 meters+
Maximum Effective Range	1500 meters (Point Target) 2000 meters (Area Target)
Rate of Fire	300 - 375 rounds per minute
Ammunition	HE, HEDP, TP, TPT (all high velocity 40 mm NATO-qualified)
Operational Temperature	Minus 32° to plus 52° Centigrade
Firing Mode	Full Automatic
Weight	35 kg (w/o mount and tripod)
Caliber	40 mm
Muzzle Velocity	240m/secs
Operating Principle	Recoil operated, Blowback
Feeding Direction	Left Side
Length	1085 mm
Width	337 mm
Height	225 mm
Barrel Length	413 mm
Number of groves	24
Accuracy	At 300 Ms Acceptable Deviation Standards are: a- Horizontal: 1 Meter b- Vertical: 1 Meter

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 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 / EZ 40



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 CZ 999 Compact

Pistol EZ9 Compact is a version of Pistol EZ9. To achieve better compactness of the weapon, its length was modified and the ballistic performances of basic model are preserved.

Pistol EZ 9 Compact / EZ 40 Compact



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 for all standard Zastava pistols with carved handgrip covers, modified surface machining and finish of handgrip covers, modified surface machining and finish of handgrip covers, engraved metal parts, modified surface machining and finish of metal parts, previous metals.

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.

Pistol CZ 999



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

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



Military Program

WORLDWIDE



Military Program

CALIBER	BULLET TYPE	BULLET MASS	CARTRIDGE MASS	PRIMER	TEMPERATURE INTERVAL	
5,56 x 45 mm NATO BALL SS 109	Rifle cartridge with steel core bullet	BALL	4 g 62 gr	12,1 g	Small rifle, Non corrosive, Non mercuric, Boxer	-54oC +52oC
5,56 x 45 mm BALL M855	Rifle cartridge with steel core bullet	BALL	4 g 62 gr	12,1 g	Small rifle, Non corrosive, Non mercuric, Boxer	-54oC +52oC
5,56 x 45 mm BALL M193	Rifle cartridge with lead-antimony bullet	BALL	3,56 g 55 gr	11,8 g	Small rifle, Non corrosive, Non mercuric, Boxer	-54oC +52oC
5,56 x 45 mm TRACER M856	Rifle cartridge with tracer bullet	BALL	4,1 g 63,3 gr	12,1 g	Small rifle, Non corrosive, Non mercuric, Boxer	-54oC +52oC
5,56 x 45 mm NATO TRACER L110	Rifle cartridge with tracer bullet	BALL	4 g 62 gr	12,1 g	Small rifle, Non corrosive, Non mercuric, Boxer	-54oC +52oC
5,56 x 45 mm BLANK M200	Rifle cartridge without bullet			6,9 g	Small rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
5,56 x 45 mm BLANK M200A1 (Long)	Rifle cartridge without bullet			7,2 g	Small rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
5,56 x 45 mm 223 Remington MATCH		HP BT MATCH	4,47 g 69 gr	12,5 g	Small rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
5,56 x 45 mm 223 Remington MATCH		HP BT MATCH	4,86 g 75 gr	12,9 g	Small rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
7,62 x 51 mm NATO BALL M80	Rifle cartridge with lead/antimony core bullet	BALL	9,4 g 145 gr	24 g	Large rifle, Non corrosive, Non mercuric Berdan (A-009), Boxer (A-306)	-54°C +52°C
7,62 x 51 mm NATO TRACER M62	Rifle cartridge with lead/antimony core bullet	TRACER	9,4 g 145 gr	24 g	Large rifle, Non corrosive, Non mercuric Berdan (A-532), Boxer (A-412)	-54°C +52°C
7,62 x 51 mm SUBSONIC	Rifle cartridge with lead/antimony core bullet	BALL	12,96 g 200 gr	24,8 g	Large rifle, Non corrosive, Non mercuric Berdan (A-568), Boxer (A-548)	-54°C +52°C
7,62 x 51 mm NATO BLANK M82	Rifle cartridge without bullet			12 g	Large rifle, Non corrosive, Non mercuric Berdan (A-445), Boxer (A-420)	-20°C +52°C
7,62 x 51 mm NATO MATCH M852	Rifle cartridge with lead/antimony core bullet	BALL	10,9 g 168 gr	25,5 g	Large rifle, Non corrosive, Non mercuric Berdan (A-525), Boxer (A-386)	-54°C +52°C
7,62 x 51 mm NATO SNIPER M118	Rifle cartridge with lead/antimony core bullet	BALL	11,34 g 175 gr	25,8 g	Large rifle, Non corrosive, Non mercuric Berdan (A-526), Boxer (A-387)	-54°C +52°C
7,62 x 51 mm 308 Winchester MATCH		HP BT MATCH	10,1 g 155 gr	24,5 g	Large rifle, Non corrosive, Non mercuric, Boxer	-54°C +52°C
7,62 x 51 mm 308 Winchester MATCH		HP BT MATCH	12,3 g 190 gr	27 g	Large rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
7,62 x 39 mm BALL M67	Rifle cartridge with lead/antimony core bullet	BALL	8 g 123 gr	17,4 g	Large rifle, Non corrosive, Non mercuric, Boxer	-40°C +52°C
7,62 x 39 mm BLANK	Rifle cartridge without bullet			9,7 g	Large rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
7,62 x 39 mm SUBSONIC M78	Rifle cartridge with lead/antimony core bullet	BALL	11,8 g 182 gr	20 g	Large rifle, Non corrosive, Non mercuric, Boxer	-40°C +52°C



Military Program

CALIBER		BULLET TYPE	BULLET MASS	CARTRIDGE MASS	PRIMER	TEMPERATURE INTERVAL
7,62 x 54 mm BALL M30 (J)	Rifle cartridge with lead/antimony core bullet	BALL	11,8 g 182 gr	24,9 g	Large rifle, Non corrosive, Non mercuric, Berdan 6,55 DTN	-40°C +52°C
7,62 x 54 BALL M87	Rifle cartridge with steel core bullet	BALL	9,6 g 148 gr	22,7 g	Large rifle, Non corrosive, Non mercuric, Berdan 6,55 DTN	-40°C +52°C
7,62 x 54 BALL BLANK	Rifle cartridge without bullet			22,7 g	Large rifle, Non corrosive, Non mercuric, Berdan (A-422), Boxer (A-392)	-20°C +52°C
7,62 x 54 mm SNIPER M03	Rifle cartridge with lead/antimony core bullet	SNIPER M03	11,8 g 182 gr	24,9 g	Large rifle, Non corrosive, Non mercuric, Berdan 6,55 DTN	-40°C +52°C
7,62 x 54 mm SNIPER	Rifle cartridge with lead/antimony core bullet	SNIPER	11,8 g 182 gr	24,9 g	Large rifle, Non corrosive, Non mercuric, Berdan 6,55 DTN	-20°C +52°C
7,62 x 54 mm MATCH	Rifle cartridge with lead/antimony core bullet	303MK8	12,3 g 190 gr	25,5 g	Large rifle, Non corrosive, Non mercuric, Boxer	-20°C +52°C
338 Lapua Magnum (8,60 x 70 mm)	Rifle cartridge with lead/antimony core bullet	BALL	16,2 g 250 gr	44 g	Large rifle magnum, Non corrosive, Non mercuric, Boxer	-54°C +52°C
338 Lapua Magnum (8,60 x 70 mm)		HP BT	16,2 g 250 gr	44 g	Large rifle magnum, Non corrosive, Non mercuric, Boxer	-54°C +52°C
.50 BROWNING (12,7 x 99 mm) SNIPER		SOLID RM06-2	47 g 725 gr	119 g	Large rifle 12,7, Non corrosive, Non mercuric, Boxer	-54°C +52°C
.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	Large rifle 12,7, Non corrosive, Non mercuric, Boxer	-54°C +52°C
.50 BROWNING (12,7 x 99 mm) BLANK				55 g	Large rifle 12,7, Non corrosive, Non mercuric, Boxer	-20°C +52°C
12,7 x 108 mm SNIPER M09		SOLID M09	51,3 g 792 gr	134 g	Large rifle 12,7, DSK Berdan	-54°C +52°C
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	Large rifle 12,7, DSK Berdan	-54°C +52°C
12,7 x 108 mm BALL		BALL, Jacket: Tombac plated steel Core with lead/antimony	51,3 g 792 gr	134 g	Large rifle 12,7, DSK Berdan	-54°C +52°C

Pistol Submachine gun and Revolver ammunition

9 x 19 mm	Pistol cartridge With lead/antimony core bullet	BALL	7,45 g 115 gr	11,7 g	Small pistol, Non corrosive Non mercuric, Boxer	-54°C +52°C
9 x 19 mm	Pistol cartridge With lead/antimony core bullet	BALL	8,0 g 124 gr	12,1 g	Small pistol, Non corrosive Non mercuric, Boxer	-54°C +52°C
9 x 19 mm	Pistol cartridge With lead/antimony core bullet	SUBSONIC BALL	9,5 g 147 gr	13,7 g	Small pistol, Non corrosive Non mercuric, Boxer	-30°C +52°C
9 x 19 mm	Pistol cartridge With lead/antimony core bullet	BLANK		5,4 g	Small pistol, Non corrosive Non mercuric, Boxer	-20°C +52°C



Rifle Ammunition / Submachine Gun ammunition / Light Machine Gun Ammunition / Machine Gun Ammunition / Pistol Ammunition / Aircraft Machine Gun Ammunition



Prvi Partizan is modern company, one of the largest of this kind in the world. Company produces over 400 types of rifle, pistol, revolver and small arms ammunition. The beginning of 21st century is especially important for technological development of Prvi Partizan. The excellent quality of our products is achieved through the consistent application of our Quality management.

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	50 / 2000	12.40 kg
22-250 REMINGTON	SP/FMJ BT	3.24 g	50 / 2000	12.70 kg
243 WINCHESTER	SP	5.80 g	50 / 2000	13 kg
25-06 REMINGTON	HP/PSP	5.80 g	50 / 2000	13.40 kg
264 WINCHESTER MAGNUM	PSP	9.10 g	50 / 2000	16.20 kg
270 WINCHESTER	SP	8.40 g	50 / 2000	13.40 kg
30 CARBINE	SPRN/FMJRN	7.10 g	50 / 2000	6.80 kg
308 WINCHESTER	FMJ BT/SP/PSP BT/HP BT GROM	8 g	50 / 2000	2.50 kg
30-30 WINCHESTER	FSP	9.70 g	50 / 2000	11.80 kg
30-06 SPRINGFIELD	SP/PSP BT/HP BT/ FMJ/GROM/Z-GROM	8 g	50 / 2000	12.90 kg
300 WINCHESTER MAGNUM	SP/SPBT/SP SPBT/FMJ BT	9.40 g	50 / 2000	16.10 kg
300 WINCHESTER MAGNUM	SPBT/FMJ BT	9.70 g	50 / 2000	13.20 kg
338 LAPUA MAGNUM	FMJBT/HP BT	16.20 g	50 / 2000	19.50 kg
375 H&H MAGNUM	SPRN/FMJ	19.50 g	50 / 2000	18 30 kg
45-70 GOVERNMENT	SJFP	26.25 g	50 / 2000	20 kg
7 mm REMINGTON MAGNUM	PSP BT/GROM/HP/ SP/Z-GROM/FMJ BT	7.80 g	50 / 2000	15.60 kg
6 mm REMINGTON	SP	5.80 g	50 / 2000	13.10 kg
6.5 mm GRENDL	FMJ BT/HP BT/SP	7.10 g	50 / 2000	10 kg
7.62 x 51 M80	FMJ BT	10 g	50 / 2000	12.60 kg

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

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

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

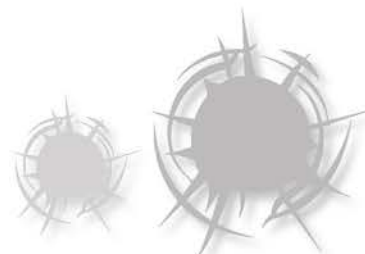
CALIBER	BULLET TYPE	BULLET WEIGHT	ROUNDS BOX / CASE	GROSS WEIGHT
5.56x45 mm	FMJ BT	3.56 g	20 / 1000	12.70 kg
223 REMINGTON	SP/FMJ BT/HP BT	4.01 g	20 / 1000	13.20 kg



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



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



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	6.60 kg
32 AUTO	FMJ/JHP	4.6 g	50 / 1000	8.50 kg
32 SMITH & WESSON LONG	LRN/WC	6.36 g	50 / 1000	8.20 kg
380 AUTO	FMJ/JHP	6.1 g	50 / 1000	10.70 kg
38 SPECIAL	FMJ/FMS/FRJ/SJFP/SJHP/ LRN/SWC/SWC HP/ WC	8.4 g	50 / 1000	7.20 kg
38 SMITH & WESSON	LRN	9.4 g	50 / 1000	14.60 kg
387 MAGNUM	FMS/FRJ/SJHP/SJFP	10.2 g	50 / 1000	8.80 kg
387 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	FRJ/JHP/JHP/SJHP/SJFP	11.7 g	50 / 1000	11 kg
48 AUTO	SJHP/FMJ/TMJ/LRN	12 g	50 / 1000	9.40 kg
7.62 MAUSER	FMJ	5.5 g	50 / 1000	6 kg
7.62x28 TOKAREV	FMJ/JHP	5.5 g	50 / 1000	6 kg
7.62 MASART	FPJ	6.35 g	50 / 1000	6.50 kg
7.65 PARABELLUM	FMJ	8 g	50 / 1000	11.20 kg
9x18 MAKAROV	FMJ/JHP	8 g	50 / 1000	10.50 g
9 mm LUGER	FMJ/SJFP/TMJ/JHP/ LRN/SJSP/FPJ	8.15 g	50 / 1000	11.30 g
9x21	FMJ/LRN	8 g	50 / 1000	13.10 g
9 mm BROWNING 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
38-44 S&W PRINCEFIELD BLANK	PP-3.5
383 BRITISH BLANK	PP-3.7
5.56 NATO	PP-5.1
5.56 NATO A1	PP-5.0
7.42x37 BLANK	PP-31
7.7 BLANK	PP-7.9
45 AUTO BLANK	PP-24.32
380 WINCHESTER BLANK	PP-3.20
7.42x54 R BLANK	PP-7.8
9 mm LUGER BLANK	PP-9.3
9 mm PA BLANK	PP-9.5



🔫	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

Bullet Abbreviations

🔫	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

Ammunition



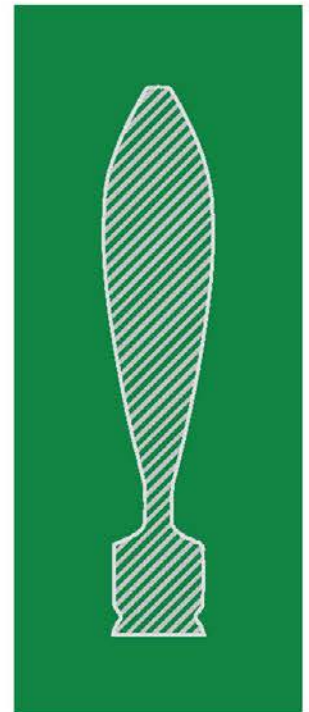
Mortar Shells
Aircraft rockets

Air bombs
Artillery Shells

Anti-tank Mines
Hand Grenades

Fuzes
Anti-tank guided rockets

Mortar Shells



Modern solutions have been applied in developing II generation of shells. Masking of friendly troops movement as well as blinding of enemy observers, fire support artillery and anti-tank weapon crews is achieved by use of modern, low-drag and highly efficient white phosphorus-based smoke shells. With use of illuminating mortar shells, mortars provide night battlefield illumination, as well as blinding of enemy crews and observers.



DESIGNATION	HE	HE	HE	HE
60 mm				
DESCRIPTION / MODEL	M73	M73 P3	M73 P4	M73 P5
LENGTH WITH FUZE (mm)	291	301	291	301
MASS WITH FUZE (g)	1350	1350	1350	1350
EXPLOSIVE CHARGE TYPE	TNT	TNT	TNT	TNT
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	
CARDBOARD BOXES IN WOODEN CASE	12		1	
GROSS MASS				
29 kg				



DESIGNATION	HE	HE	HE	HE
60 mm				
DESCRIPTION / MODEL	M08	M08 P1	MK10	MK10 P1
LENGTH WITH FUZE (mm)	301	301	410	410
MASS WITH FUZE (g)	1350	1350	2100	2100
EXPLOSIVE CHARGE TYPE	TNT	TNT	TNT	TNT
EXPLOSIVE CHARGE MASS (g)	220	220	400	400
TEMPERATURE ENVIRONMENT	-46°C to 60°C	46°C to 60°C	46°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-N	UT M88 P1	UTU M93
SHELL PACKING	BOXES IN CASE		SHELLS IN CARDBOARD	
CARDBOARD BOXES IN WOODEN CASE	12		1	
GROSS MASS				
29 kg				



DESIGNATION	ILLUMINATING	ILLUMINATING	ILLUMINATING	ILLUMINATING
60 mm				
DESCRIPTION / MODEL	M67	M67 P2	M08	M91
LENGTH WITH FUZE (mm)	330	330	330	495
MASS WITH FUZE (g)	1270	1270	1270	2100
EXPLOSIVE CHARGE TYPE	180.000 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)	400	400	400	400
FUZE TYPE	TP M67	TP M67	TP M67	TP M67
SHELL PACKING	BOXES IN CASE		SHELLS IN CARDBOARD	
CARDBOARD BOXES IN WOODEN CASE	12		1	
GROSS MASS				
27 kg				



DESIGNATION	ILLUMINATING	SMOKE	SMOKE	SMOKE
60 mm				
DESCRIPTION / MODEL	MK10	M73	M73 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)	400	94	94	94
FUZE TYPE	TP M67	UT M68 P1	UT M68 P1	UT M88 P1
SHELL PACKING	BOXES IN CASE		SHELLS IN CARDBOARD	
CARDBOARD BOXES IN WOODEN CASE	12		1	
GROSS MASS				
27 kg				



DESIGNATION	SHOCK	SHOCK	SHOCK	PRACTICE
60 mm				
DESCRIPTION / MODEL	MK70	MK3	M08	MK2
LENGTH WITH FUZE (mm)	410	330	330	202 (no fuze)
MASS WITH FUZE (kg)	2100	1400	1400	1080 (no fuze)
EXPLOSIVE CHARGE TYPE	/	/	/	/
SHOCK CHARGE MASS (g)	230	450	450	/
TEMPERATURE ENVIRONMENT	-40°C to 63°C	-30°C to 50°C	-30°C to 50°C	-40°C to 63°C
KILLING RANGE RADIUS	/	/	/	/
MAX RANGE (m)	6500	2400	2400	50
MIN RANGE (m)	50	300	300	50
FUZE TYPE	UT MK3 P1	TP MK7	TP MK7	/
SHELL PACKING	BOXES IN CASE <th>SHELLS IN CARTRIDGE</th> <th>GROSS MASS</th> <td></td>	SHELLS IN CARTRIDGE	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	12	1	28 kg	

Mortar Shells 60mm

Mortar Shells 81/82mm



DESIGNATION	HE	HE	HE	HE
81/82 mm				
DESCRIPTION / MODEL	M72 / 74	M72 P3 / M74 P3	M72 P4 / M74 P4	M09
LENGTH WITH FUZE (mm)	376	400	400	400
MASS WITH FUZE (kg)	3050	3180	3180	3180
EXPLOSIVE CHARGE TYPE	TNT	TNT	TNT	TNT
EXPLOSIVE CHARGE MASS (g)	680	680	680	680
TEMPERATURE ENVIRONMENT	-30°C to 60°C	-30°C to 50°C	-30°C to 50°C	-40°C to 63°C
KILLING RANGE RADIUS	14 m	16 m	14 m	16 m
MAX RANGE (m)	5070	5070	5070	5070
MIN RANGE (m)	91	91	91	91
FUZE TYPE	UT MK3 P1	UTU MK3-N	UT MK3 P1	UT MK3 P1
SHELL PACKING	BOXES IN CASE	SHELLS IN CARTRIDGE	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	6	1	29 kg	

81/82 mm



DESIGNATION	HE	HE	HE	HE
81/82 mm				
DESCRIPTION / MODEL	M08 P1	M01	M01 P1	MK11
LENGTH WITH FUZE (mm)	400	480	480	480
MASS WITH FUZE (kg)	3180	4100	4100	4100
EXPLOSIVE CHARGE TYPE	TNT	RDX / TNT	RDX / TNT	RDX / TNT
EXPLOSIVE CHARGE MASS (g)	680	680	650	650
TEMPERATURE ENVIRONMENT	-40°C to 63°C	-30°C to 50°C	-30°C to 50°C	-40°C to 60°C
KILLING RANGE RADIUS	14 m	16 m	16 m	14 m
MAX RANGE (m)	5070	6500	6500	6500
MIN RANGE (m)	91	100	100	100
FUZE TYPE	UTU MK3-N	UT MK3 P1	UTU MK3-N	UT MK3 P1
SHELL PACKING	BOXES IN CASE	SHELLS IN CARTRIDGE	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	5	1	34 kg	

Mortar Shells 81/82mm

Mortar Shells 81/82mm



DESIGNATION	HE	ILLUMINATION	ILLUMINATION	ILLUMINATION
81/82 mm				
DESCRIPTION / MODEL	MK11 P1	M67	M67 P2	M09
LENGTH WITH FUZE (mm)				
MASS WITH FUZE (kg)	4100	2950	2950	2950
ILLUMINATION POWER / TIME	/	500,000 Cd / 40 s	800,000 Cd / 35 s	500,000 Cd / 30 s
EXPLOSIVE CHARGE MASS (g)	650	/	/	/
TEMPERATURE ENVIRONMENT	-40°C to 63°C	-30°C to 50°C	-30°C to 60°C	-30°C to 50°C
KILLING RANGE RADIUS	16 m	/	/	/
MAX RANGE (m)	6500	3650	3650	3650
MIN RANGE (m)	100	250	250	250
FUZE TYPE	UTU MK3-N	TP MK7	TP MK7	TP MK7
SHELL PACKING	BOXES IN CASE	SHELLS IN CARTRIDGE	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	5	1	27 kg	

Mortar Shells 81/82mm



81/82 mm

DESIGNATION	SMOKE	HIGH-SMOKE	HIGH-SMOKE	HIGH-SMOKE
DESCRIPTION / MODEL	M85	M81	M81 P1	M85
LENGTH WITH FUZE (mm)	478	410	410	480
MASS WITH FUZE (g)	4100	2960	2960	4260
SMOKE TIME	min 120 s	min 120 s	min 120 s	min 120 s
SMOKE CHARGE WEIGHT (g)	700	260	850	260
TEMPERATURE ENVIRONMENT	-40°C to 63°C	-30°C to 50°C	-30°C to 50°C	-30°C to 50°C
KILLING RANGE (m)	/	/	/	/
MAX RANGE (m)	6600	5400	3400	5480
MIN RANGE (m)	90	300	300	300
FUZE TYPE	UT M85 P1	TP M87	TP M87	TP M87P2
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	5	1	36 kg	

DESIGNATION	ILLUMINATION	ILLUMINATION	SMOKE	SMOKE
DESCRIPTION / MODEL	M85	M81	M72 / M74	M72 P3 / M74 P8
LENGTH WITH FUZE (mm)	530	530	375	400
MASS WITH FUZE (g)	4260	4260	3050	3180
ILLUMINATING POWDER / TIME	750,000 Cd / 40 s	750,000 Cd / 40 s	/	/
ILLUMINATING CHARGE MASS (g)	750	700	/	/
TEMPERATURE ENVIRONMENT	-30°C to 50°C	-30°C to 50°C	-30°C to 50°C	-40°C to 63°C
SMOKE CHARGE WEIGHT (g)	/	/	550	560
MAX RANGE (m)	5480	5480	6070	6070
MIN RANGE (m)	300	300	81	91
FUZE TYPE	TP M87P2	TP M87P2	UT M88 P1	UT M88P1
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	5	1	28 kg	



Mortar Shells 81/82mm

Mortar Shells 120 mm



120 mm

DESIGNATION	HE	HE	HE	PRACTICE
DESCRIPTION / MODEL	M82 P8	M82 P1	M82 P1-L	M83 P2
LENGTH WITH FUZE (mm)	805	808	805	508 (no fuze)
MASS WITH FUZE (g)	12,6	14,8	14,8	11,6 (no fuze)
EXPLOSIVE CHARGE TYPE	RDX / TNT	TNT	TNT	/
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 (m)	20 m	24 m	24 m	/
MAX RANGE (m)	8500	7400	8400	500
MIN RANGE (m)	256	255	276	50
FUZE TYPE	UTU M80 P1 SQD	UTU M80P1 SQD	UTU M80P1 SQD	/
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	2	1	44 kg	

DESIGNATION	SMOKE	HIGH-SMOKE	PRACTICE	PRACTICE
DESCRIPTION / MODEL	M81	M88	M 68 PARACHUTE TARGET	M82
LENGTH WITH FUZE (mm)	478	480	380 (no fuze)	287
MASS WITH FUZE (g)	4100	4260	2306 (no fuze)	2048
SMOKE TIME	min 120 s	min 120 s	/	/
SMOKE CHARGE WEIGHT (g)	700	850	/	/
TEMPERATURE ENVIRONMENT	-30°C to 50°C	-30°C to 50°C	/	/
KILLING RANGE (m)	/	/	/	/
MAX RANGE (m)	6600	5480	/	280
MIN RANGE (m)	90	300	/	50
FUZE TYPE	UT M88 P1	TP M87	/	/
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	5	1	35 kg	



Mortar Shells 81/82mm

Aircraft Rockets & Bombs

Aircraft Rockets & Bombs



DESIGNATION	SMOKE	SMOKE	SMOKE	SMOKE
120 mm				
DESCRIPTION / MODEL	M64 P2	M64 P3	MK12	M89
LENGTH WITH FUZE (mm)	600	606	800	670
MASS WITH FUZE (g)	12.6	12.6	14.8	11.25
SMOKE TIME	min 210 s	min 210 s	min 210 s	min 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	7400	6000
MIN RANGE (m)	255	255	255	400
FUZE TYPE	UT M68 P1	UT M88 P1	UT M88 P1	TP M87
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS	
CARDBOARD BOXES IN WOODEN CASE	2	1	44 kg	

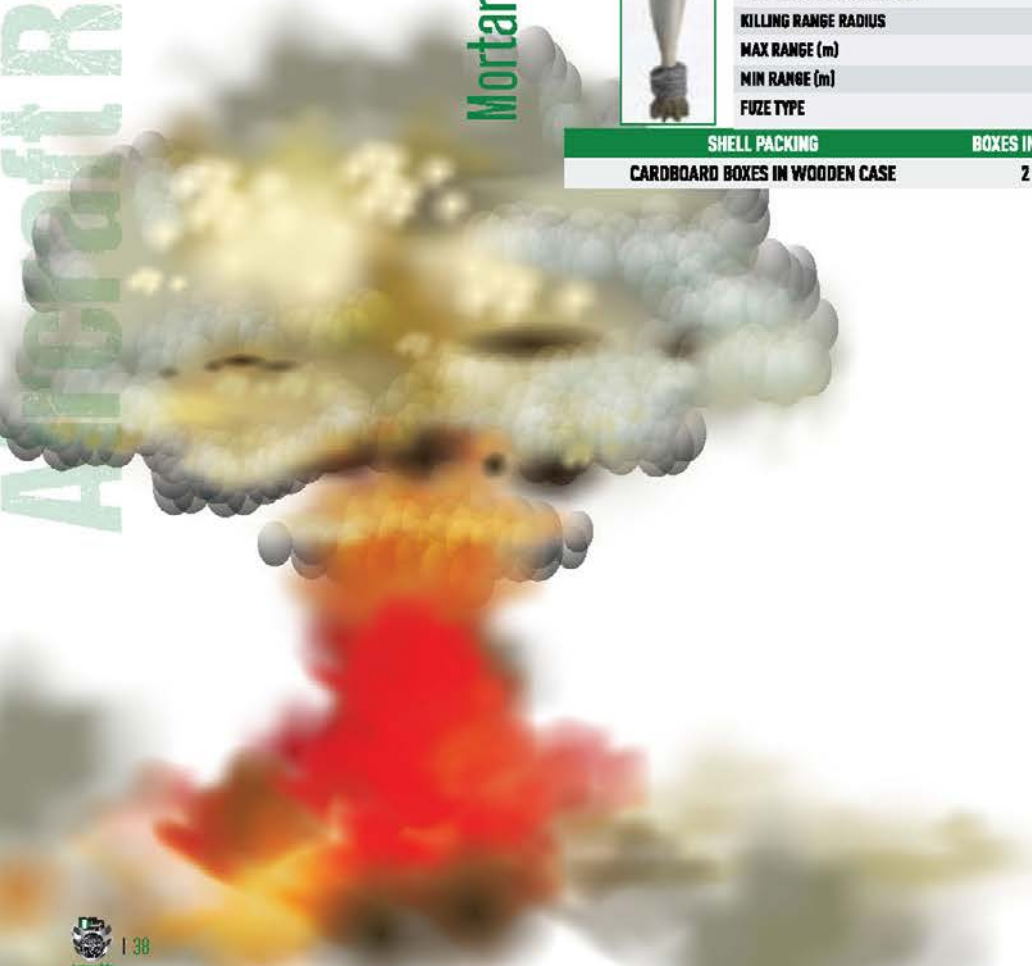


Mortar Shells 120 mm

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 s	1.000.000 Cd / 60 s	
ILLUMINATING CHARGE MASS (kg)	1.2	1.2	
TEMPERATURE ENVIRONMENT	-30°C to 50°C	-30°C to 50°C	
KILLING RANGE RADIUS	/	/	
MAX RANGE (m)	6000	6600	
MIN RANGE (m)	400	400	
FUZE TYPE	TP M87	TP M87P1	
SHELL PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS
CARDBOARD BOXES IN WOODEN CASE	2	1	37 kg





DESCRIPTION / MODEL	BR-1-57	BR-2-57	BR-20-57
LENGTH WITH FUZE (mm)	882	824	1200
MASS (g)	3.8	3.64	4.5
EXPLOSIVE CHARGE MASS (g)	285	290	320
MAXIMUM SPEED	673 to 617 m/s	563 to 620 m/s	/
1 KM FLYING TIME	1.89 to 2.19 s	2.46 to 2.17 s	/
PRESSURE IN THE ROCKET CHAMBER	380 kg/cm ²	375 kg/cm ²	/
FUZE TYPE	UTI-1	UTI-2	UTI-2
ROCKET PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS
WOODEN CASE	2	1	37 kg



Aircraft Rocket 57 mm

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)	117	128	240	252
EXPLOSIVE CHARGE MASS (g)	39	39	105	70
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 PACKING	BOMBS IN CRATE	FINS		
CRATE	3	12		

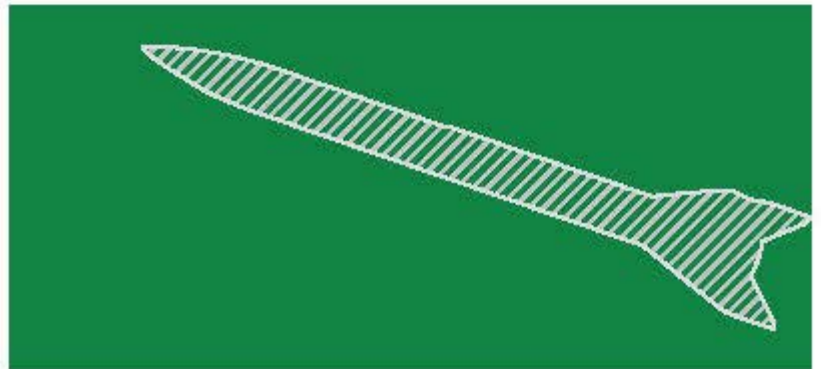


Unguided Rockets

Unguided Rockets



Unguided rockets for multi-tube launchers intended for impact, 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.





"GRAD" is self-propelled multi-tube missile launcher intended for impact, sudden and quick fire assaults on the surface targets in the depth of the enemy. It is efficient against all types of targets: personnel, non-armoured and armoured vehicles.

System "GRAD" fires three types of missiles: GRAD, GRAD-M and GRAD 2000. The launcher is carried on the vehicle TAM 150 TTI BV 6x6. It is possible to mount it on other vehicles of the similar characteristics.

107 mm



M06 – Extended Unguided Artillery Rocket

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 MB4
ROCKET PACKING	BOXES IN CASE
WOODEN CASE	2
GROSS MASS	
49 kg	



Unguided Rocket 122 mm Grad/Grad – M/Grad 2000



122 mm



DESCRIPTION / MODEL	GRAD	GRAD - M	GRAD 2000
CALIBER (mm)	122	122	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	2	87 kg	

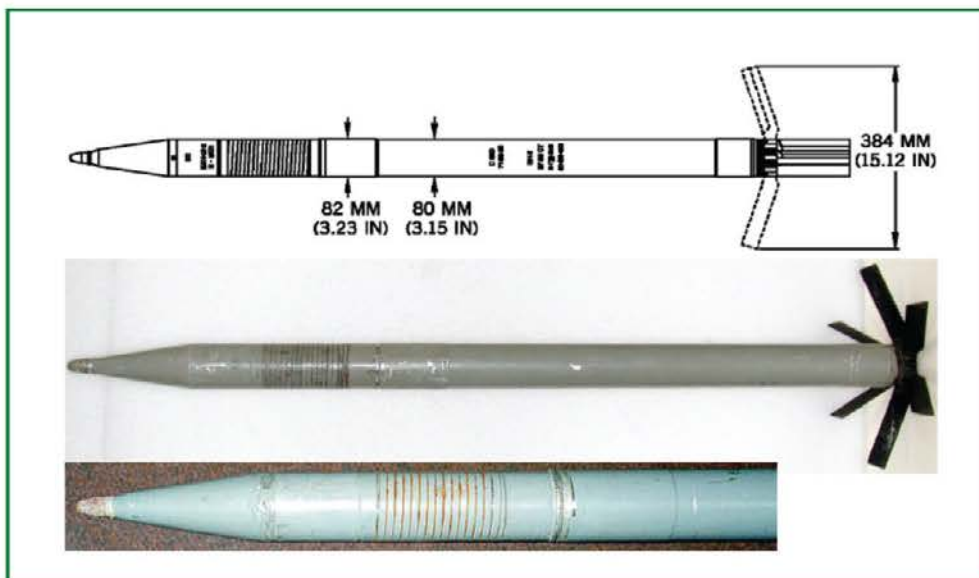
Rockets S5 and S8

Rocket S5



This is the Bulgarian 57mm S5, a high explosive fin-stabilised, solid propellant, air-to-ground-rocket. The S5 series of conventional unguided rockets comprises a warhead, a solid-propellant rocket motor and flip-out tails fins for stability.

The S5 is a 55mm calibre unguided rocket fired from a 57mm calibre tube.



Rocket S8



This is the Bulgarian 80mm S8, a high explosive fragmentation, fin-stabilised, air-to-ground-rocket, with a cross-cut diamond pattern fragmentation sleeve.

The S8 is a conventional 80mm calibre unguided electrically fired rocket with a solid-propellant rocket motor.



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 armoured 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 TII BV6x6.

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 Rocket 128 mm - PLAMEN



128 mm



DESCRIPTION / MODEL	PLAMEN A	PLAMEN D
CALIBER (mm)	128	128
LENGTH WITH FUZE (mm)	837	971
MASS WITH FUZE (kg)	23.1	25.5
WARHEAD EXPLOSIVE WEIGHT (kg)	2.6	3.3
MAXIMUM RANGE (km)	8.6	12.6
OPERATING TEMPERATURE RANGE	-30°C to +50°C	-30°C to +50°C
ROCKET PACKING	BOXES IN CASE	
WOODEN CASE	1	

128 mm



Unguided Rocket M-77 128mm - OGANJ

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	LTU, M77
ROCKET PACKING	BOXES IN CASE
WOODEN CASE	1
	GROSS MASS
	76 kg

100 mm
105 mm
125 mm
130 mm
52 mm
155 mm



Artillery Shells



100 mm

125 mm

152 mm

105 mm

130 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.



40 mm Ammunition



Designed to be used against live force, in both open and sheltered space. It is from grenade launcher GP-25 mounted under the barrel of the Klashinkov 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 of 200 to 350m.

40 mm



	DESIGNATION	BLASTING	BLASTING	CUMULATIVE	HE
DESCRIPTION / MODEL	M02	M04	M04	M04	M04
LENGTH (mm)	105	125	108	103	
MASS (g)	260	300	260	190	
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	-53°C to 71°C
PENETRATION (mm)	/	/	50	/	
MAX RANGE (m)	400	400	400	400	
MIN RANGE (m)	/	/	/	/	
FUZE TYPE	UT, M02 SP	UT, M07	UT, M02 SP	UT, M04	
SHELL PACKING	CONTAINERS		BOX DIMENSION		GROSS MASS
PLASTIC CONTAINERS IN WOODEN BOX	40		59,6 x 36,6 x 19,6 cm		23.5 kg

40 mm Ammunition



40 mm



	DESIGNATION	INCENDIARY	SMOKE	PRACTICE	
DESCRIPTION / MODEL	M04	M04	M04	M04	
LENGTH (mm)	105	108	105		
MASS (g)	260	260	260		
SMOKE MIXTURE MASS (g)	/	100	/		
SELF DESTRUCTION TIME (s)	15	15	15		
TEMPERATURE ENVIRONMENT	-53°C to 71°C	-53°C to 71°C	-53°C to 71°C		
INCENDIARY MIXTURE MASS (g)	80	/	80		
MAX RANGE (m)	400	400	400		
MIN RANGE (m)	/	/	/		
FUZE TYPE	UT, M02 SP	UT, M02 SP	UT, M02 SP		
SHELL PACKING	BOXES IN CASE		SHELLS IN CARDBOARD		GROSS MASS
CARDBOARD BOXES IN WOODEN CASE	40		59,6 x 36,6 x 19,6 cm		23.5 kg

40 mm Ammunition





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



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	





Anti-Tank Mines

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 BOX	BOX GROSS WEIGHT
BOX	4	43 kg





 AntiMagnetic
 Antitank Mine - 6(TMA-6)

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 GROSS WEIGHT
BARREL	4	28 kg



FUZES

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 UT-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 transport 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 86" 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 adjustable 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

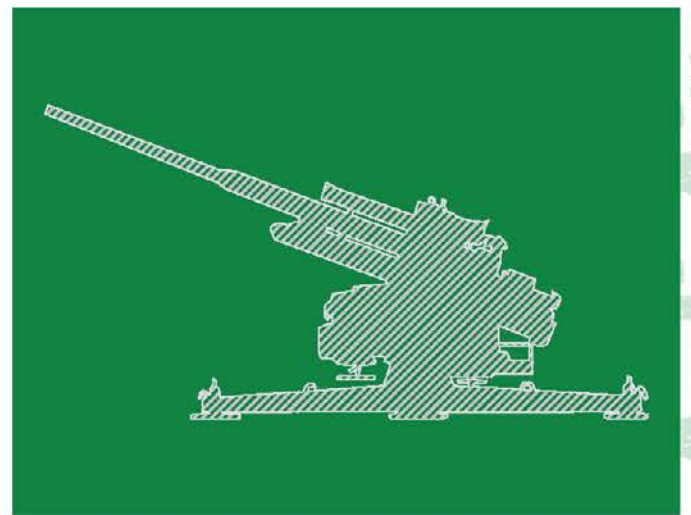
DESCRIPTION AUFK - M 91 is impact ,inertia-type of an electric - mechanical fuze for aircraft bombs with superquick (T) and delay action (U) adjustable by mode selector

Ammunition



Small Caliber Ammunition
Large Caliber Ammunition
Artillery Ammunition
Rocket weapons
Police Program

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.



Anti-Aircraft Ammunition

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



NATO DESIGNATION	HE	HEI	HE-T	HEI-T	API-T	API	AP-T	TP-T	TP	BLANK
20 mm										
WEIGHT (g)										
PROJECTILE (g)	122	122	122	122	142	142	142	122	122	min 70
PROPELLANT (g)	29	29	29	29	32	32	32	29	29	29
EXPLOSIVE (g)	12.1	12.1	6.1	6.1	none	none	none	none	none	none
COMPLETE ROUND (g)	246	246	246	246	265	265	265	246	246	195
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	RDX+AL	none	none	none	none	none	none
LENGTH (COMPLETE ROUND)	184	184	184	184	182	182	182	184	184	184
MUZZLE VELOCITY (m/s)	845	845	845	845	844	844	844	845	845	none
SELF-DESTRUCTION TIME (s)	4.5-8	4.5-8	4.5-8	4.5-8	none	none	none	none	none	none
TRACER BURNING TIME (s)	/	/	3.5	3.5	3.5	3.5	/	3.5	/	/
PACKING	ROUNDS IN CASE			DIMENSIONS				GROSS MASS		
WOODEN CASE	100			660 x 232 x 200 mm				34 kg		

NATO DESIGNATION	HE	HEI	HE-T	HEI-T	API-T	API	AP-T	TP-T	TP	BLANK
20 mm										
WEIGHT (g)										
PROJECTILE (g)	119	119	122	122	142	142	142	122	119	min 70
PROPELLANT (g)	29	29	29	29	32	32	32	29	29	29
EXPLOSIVE (g)	12.1	12.1	6.1	6.1	none	none	none	none	none	none
COMPLETE ROUND (g)	246	246	246	246	265	265	265	246	246	195
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	RDX+AL	none	none	none	none	none	none
LENGTH (COMPLETE ROUND)	184	184	184	184	182	182	182	182	184	184
MUZZLE VELOCITY (m/s)	845	845	845	845	844	844	844	845	845	none
SELF-DESTRUCTION TIME (s)	4.5-9	4.5-9	4.5-9	4.5-9	none	none	none	none	none	none
TRACER BURNING TIME (s)	/	/	3.5	3.5	3.5	/	3.5	3.5	/	/
PACKING	ROUNDS IN CASE			DIMENSIONS				GROSS MASS		
WOODEN CASE	100			660 x 232 x 200 mm				34 kg		



20mm x 110 RB for AA MK-IV "OERLIKON"

23mm x 115 for AA MK GUN GSH-23L
and GSH-23LU



NATO DESIGNATION	HE	HEI	TP	API-T	API
23 mm					
WEIGHT (g)					
PROJECTILE (g)	174	174	174	168	174
PROPELLANT (g)	37	37	37	37	37
EXPLOSIVE (g)	16.3	16.3	none	none	none
COMPLETE ROUND (g)	329	329	331	321	331
EXPLOSIVE TYPE	RDX	RDX+AL	none	none	none
LENGTH (COMPLETE ROUND)	197.9	197.9	197.9	197.8	197.8
MUZZLE VELOCITY (m/s)	720	720	720	720	720
TRACER BURNING TIME (s)	none	none	none	3.5	none
PACKING	ROUNDS IN CASE		DIMENSIONS		GROSS MASS
WOODEN CASE	100		705 x 250 x 202 mm		42 kg

NATO DESIGNATION	HE	HEI	HE-T	HEI-T	API-T	API	TP-T	TP
23 mm								
WEIGHT (g)								
PROJECTILE (g)	182	182	190	190	190	190	190	182
PROPELLANT (g)	78	78	78	78	78	78	78	78
EXPLOSIVE (g)	19.6	19.6	16.3	16.3	5	5	none	none
COMPLETE ROUND (g)	440	440	450	450	450	450	450	440
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	EDX+AL	none	none	none	none
LENGTH (COMPLETE ROUND)	236	236	236	236	236	236	236	236
MUZZLE VELOCITY (m/s)	970	970	970	970	970	970	970	970
SELF-DESTRUCTION TIME (s)	5.6-11.2	5.6-11.2	5.6-11.2	5.6-11.2	5.6-11.2	5.6-11.2	5.6-11.2	5.6-11.2
TRACER BURNING TIME (s)	none	none	3.5	3.5	3.5	/	3.5	/
PACKING	ROUNDS IN CASE		DIMENSIONS		GROSS MASS			
WOODEN CASE	80		688 x 286 x 229 mm		44 kg			



23mm x 115B for AA GUN
ZU-2 and ZSU-4

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



30 mm

NATO DESIGNATION	HE	HEI	HE-T	HEI-T	AP	AP-T	TP-T	TP
WEIGHT (g)								
PROJECTILE (g)	389	389	385	385	400	400	385	389
PROPELLANT (g)	121	121	121	121	126	126	121	121
EXPLOSIVE (g)	49	49	11.5	11.5	none	none	none	none
COMPLETE ROUND (g)	839	839	835	835	853	853	835	839
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	RDX+AL	none	none	none	none
LENGTH (COMPLETE ROUND)	291	291	291	291	292	292	292	292
MUZZLE VELOCITY (m/s)	890	890	890	890	890	890	890	890
SELF-DESTRUCTION TIME (s)	13-19	13-19	13-19	13-19	none	none	none	none
TRACER BURNING TIME (s)	none	none	10	10	none	3.5	10	none
PACKING	WOODEN CASE		ROUNDS IN CASE		DIMENSIONS		GROSS MASS	
			30		576 x 338 x 218 mm		37 kg	



30mm x 165 for AA GUN
30mm AO 18



30 mm

NATO DESIGNATION	HE	HEI	AP	AP-T	TP			
WEIGHT (g)								
PROJECTILE (g)	389	389	400	400	389			
PROPELLANT (g)	121	121	126	126	121			
EXPLOSIVE (g)	49	49	none	none	none			
COMPLETE ROUND (g)	840	840	850	850	840			
EXPLOSIVE TYPE	RDX	RDX+AL	none	none	none			
LENGTH (COMPLETE ROUND)	290	290	292	292	290			
MUZZLE VELOCITY (m/s)	860	860	860	860	860			
SELF-DESTRUCTION TIME (s)	none	none	none	3.5	none			
TRACER BURNING TIME (s)	none	none	none	3.5	none			
PACKING	WOODEN CASE		ROUNDS IN CASE		DIMENSIONS		GROSS MASS	
			30		576 x 338 x 218 mm		37 kg	



30mm x 165 for AA GUN
30mm 2A72, 2A42 and 2A38M



30 mm

NATO DESIGNATION	HE	HEI	HE-T	HEI-T	AP	AP-T	TP-T	TP
WEIGHT (g)								
PROJECTILE (g)	385	389	385	385	400	400	385	389
PROPELLANT (g)	121	121	121	121	126	126	121	121
EXPLOSIVE (g)	49	49	11.5	11.5	none	none	none	none
COMPLETE ROUND (g)	833	833	835	835	853	853	835	833
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	RDX+AL	none	none	none	none
LENGTH (COMPLETE ROUND)	292	292	291	291	292	292	291	291
MUZZLE VELOCITY (m/s)	960	960	960	960	970	970	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	none	10	10	none	3.5	10	none
PACKING	WOODEN CASE		ROUNDS IN CASE		DIMENSIONS		GROSS MASS	
			30		576 x 338 x 218 mm		37 kg	



30mm x 220 for AA GUN
30/2 M53, 53/59 (CS)

30mm x 210B for AA GUN
30mm AK-230

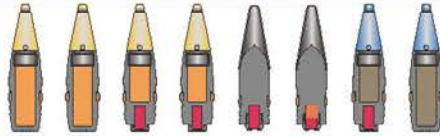


30 mm

NATO DESIGNATION	HE	AP-T	TP	HEI	HEI-T	TP-T	BLANK	
WEIGHT (g)								
PROJECTILE (g)	356	350	356	435	435	435	min 250	
PROPELLANT (g)	190	190	190	195	195	195	195	
EXPLOSIVE (g)	31.1	none	none	40.8	35.7	none	none	
COMPLETE ROUND (g)	1066	1050	1066	1140	1140	1140	min 960	
EXPLOSIVE TYPE	RDX+AL	none	none	RDX+AL	RDX+AL	none	none	
LENGTH (COMPLETE ROUND)	304	304	304	331	331	331	331	
MUZZLE VELOCITY (m/s)	1060	1095	1060	997	997	997	/	
SELF-DESTRUCTION TIME (s)	12-7	none	none	9-13	9-13	none	none	
TRACER BURNING TIME (s)	none	min 2	none	none	4	4	none	
PACKING	WOODEN CASE		ROUNDS IN CASE		DIMENSIONS		GROSS MASS	
	AK-230		37 / 40		576 x 338 x 218 mm		37 kg	
	M53, 53/59		40		642 x 355 x 176 mm		61 kg	

NATO DESIGNATION HE HEI HE-T HEI-T AP-T API-T TP-T TP

37 mm



WEIGHT (g)									
PROJECTILE (g)	732	732	732	732	760	732	732	732	732
PROPELLANT (g)	200	200	200	200	200	200	200	200	200
EXPLOSIVE (g)	40	40	38	38	none	none	none	none	none
COMPLETE ROUND (g)	1480	1480	1480	1480	1480	1480	1480	1480	1480
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	RDX+AL	none	none	none	none	none
LENGTH (COMPLETE ROUND)	385	385	385	385	385	385	385	385	385
MUZZLE VELOCITY (m/s)	850	850	850	850	850	850	850	850	850
SELF-DESTRUCTION TIME (s)	7-14	7-14	7-14	7-14	7-14	none	none	none	none
TRACER BURNING TIME (s)	none	none	6	6	6	6	6	6	none

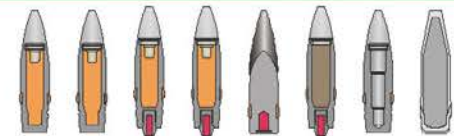
PACKING ROUNDS IN CASE DIMENSIONS GROSS MASS



30mm x 252 for AA GUN
37mm M39 (SU)

NATO DESIGNATION HE HEI HE-T HEI-T AP-T TP-T TP BLANK

40 mm



40mm x 311 for AA GUN
40mm L/60

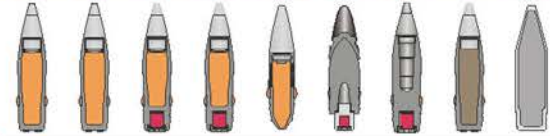


WEIGHT (g)									
PROJECTILE (g)	910	910	910	910	900	910	910	910	800
PROPELLANT (g)	310	310	310	310	320	310	310	310	310
EXPLOSIVE (g)	78	78	78	78	none	78	none	none	none
COMPLETE ROUND (g)	2100	2100	2100	2100	2100	2100	2100	2100	1900
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	EDX+AL	none	none	none	none	none
LENGTH (COMPLETE ROUND)	447	447	447	447	447	447	447	447	447
MUZZLE VELOCITY (m/s)	880	880	880	880	880	880	880	880	none
SELF-DESTRUCTION TIME (s)	8-12	8-12	8-12	8-12	none	8-12	8-12	8-12	none
TRACER BURNING TIME (s)	none	none	5	5	3.5	5	none	none	none

PACKING ROUNDS IN CASE DIMENSIONS GROSS MASS
WOODEN CASE 16 564 x 343 x 318 mm 46 kg

NATO DESIGNATION HE HEI HE-T HEI-T PFHE AP-T TP-T TP BLANK

40 mm



WEIGHT (g)											
PROJECTILE (g)	964	964	964	964	880	930	964	964	920		
PROPELLANT (g)	480	480	480	480	480	480	480	480	480		
EXPLOSIVE (g)	95	95	83	83	83	none	none	none	none		
COMPLETE ROUND (g)	2500	2500	2500	2500	2420	2470	2500	2500	2450		
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	RDX+AL	RDX	none	none	none	none		
LENGTH (COMPLETE ROUND)	535	535	535	535	534.5	497	535	535	535		
MUZZLE VELOCITY (m/s)	1005	1005	1005	1005	1025	1025	1005	1005	none		
SELF-DESTRUCTION TIME (s)	8-13	8-13	8-13	8-13	3.5-10	none	none	none	none		
TRACER BURNING TIME (s)	/	/	4	4	/	4	4	/	/		

PACKING ROUNDS IN CASE DIMENSIONS GROSS MASS



40mm x 365 for AA GUN
40mm L/70 "BOFOR"

57mm x 248 for Self-propelled
AA Gun 57mm S/68 and S/60



NATO DESIGNATION HE HEI HE-T HEI-T AP-T TP-T TP

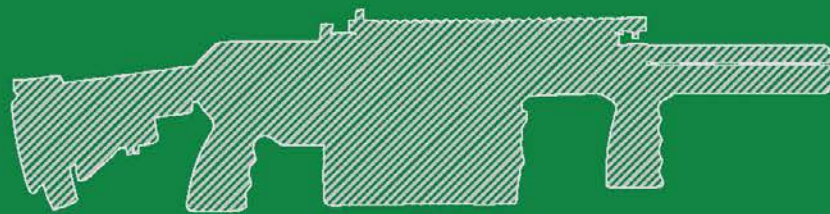
57 mm



WEIGHT (g)								
PROJECTILE (g)	2850	2850	2850	2850	2850	2850	2850	
PROPELLANT (g)	1180	1180	1180	1180	1180	1180	1180	
EXPLOSIVE (g)	153	153	153	153	none	none	none	
COMPLETE ROUND (g)	6350	6350	6350	6350	6350	6350	6350	
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	RDX+AL	none	none	none	
LENGTH (COMPLETE ROUND)	max 536.61	max 536.61	max 536.61	max 536.61	max 536.61	max 536.61	max 536.61	
MUZZLE VELOCITY (m/s)	1000	1000	1000	1000	1000	1000	1000	
SELF-DESTRUCTION TIME (s)	13-17	13-17	13-17	13-17	none	none	none	
TRACER BURNING TIME (s)	none	none	10	10	10	10	none	

PACKING ROUNDS IN CASE DIMENSIONS GROSS MASS
WOODEN CASE 20 650 x 393 x 363 mm 65 kg





Grenades 30mm / 40mm






Grenades 30mm / 40mm

	30mm HE, M93 P1	30mm TP, M93	30mm PM, M93 P1
NATO DESIGNATION	HE	TP	PM
			
WEIGHT (g)			
MASS OF ROUND (g)	360	360	360
MASS OF PROJECTILE (g)	273	273	273
LENGTH (mm)	132	132	132
MUZZLE VELOCITY (m/s)	185	185	185
MAXIMUM RANGE (m)	1700	1700	1700
TYPE	UT M99 SD	TRAINING PRACTICE	UT M02 PM SD
SELF DESTRUCTION (s)	27	/	27
SAFETY DISTANCE	10 m in front of barrel	/	10 m in front of barrel





30 mm

	M99	M99	M99	M03
NATO DESIGNATION	HEPD-SD	HEPD-SD (DUAL PURPOSE)	TPSFM	HE
				
WEIGHT (g)				
MASS OF ROUND (g)	104	104	104	106
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)	400	400	400	400
SELF DESTRUCTION (s)	15-20	15-20	15-20	15-20
PENETRATION (mm)	/	min 25 (armour steel plate)	/	/
SAFETY DISTANCE	/	/	/	15 m in front of barrel


40 mm

	M04	M04	M01
NATO DESIGNATION	RED STAR WITH PARACHUTE	ILLUMINATING WITH PARACHUTE	ILLUMINATING
			
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)	2-3	2-3	/
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





40 mm

	M99	M99	M01 S	M99
NATO DESIGNATION	SMOKE WHITE	SMOKE CS	SMOKE	FLASH
				
WEIGHT (g)				
MASS OF ROUND (g)	106	106		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	50-400	max 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	/	/




40 mm

	M04	M05
NATO DESIGNATION	BUCKSHOT	FLECHETTE
40 mm		
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



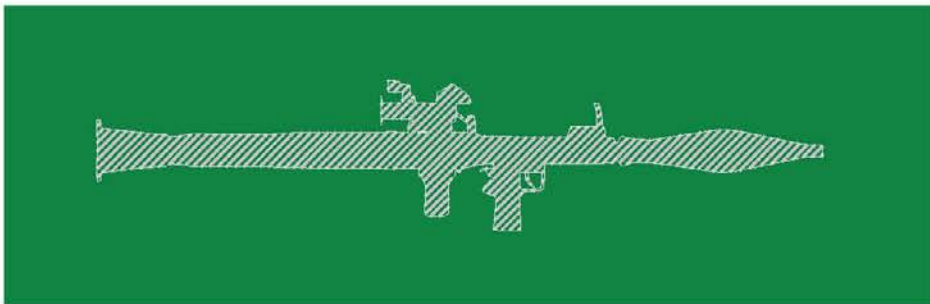
RIFLE GRENADES	M60	M62	M62	M60 P1
NATO DESIGNATION	ANTI-TANK	SMOKE	ILLUMINATING	FRAGMENTATION
60 mm				
WEIGHT (g)				
MASS (g)	610	475	450	520
LENGTH (mm)	390	330	330	307
PENETRATION (mm)	200 (at 100 m)	/	/	/
SMOKE TIME (s)	/	70-100	/	/
BURNING TIME (s)	/	/	min 24	/



RIFLE GRENADES WITH BULLET TRAP	M91 P1	M99	M03
NATO DESIGNATION	HE	HE	HE BT
30 mm			
WEIGHT (g)			
MASS (g)	555	555	450
LENGTH (mm)	315	315	270
TYPE	fragmentation	fragmentation	fragmentation
FUZE	Impact, superquick action	Impact, superquick action	Impact, 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)	15-20	15-20	15-20
SAFETY DISTANCE	Min. 20 m in front of barrel	Min.15 m in front of barrel	Min. 15 m in front of barrel

Recoilless Launchers

RECOILLESS LAUNCHERS



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.



SPECIFICATION	
TYPE	HEAT
LENGTH (mm)	672
MASS (g)	3630
PENETRATION (mm)	> 450 (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)



90mm Hand Rocket Launcher - RBR M79

64mm Hand Anti Tank Rocket - RBR M80



SPECIFICATION	
TYPE	HEAT
LENGTH IN TRAVELING POSITION (mm)	800
LENGTH IN COMBAT POSITION (mm)	1200
MASS (g)	
PENETRATION (mm)	> 300 (on homogeneous armour plate)
MUZZLE VELOCITY (m/s)	
EFFECTIVE RANGE (m)	
MAXIMUM RANGE (m)	
PACKAGE (UNITS)	
PACKAGE WEIGHT (kg)	
FUZE	Impact, superquick, piezoelectric with self destruction, (UT PE M80 SP)



SPECIFICATION	
TYPE	HEAT
LENGTH (mm)	1350
MASS (kg)	13
PENETRATION (mm)	> 800 (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)



120mm Light Anti Tank Weapon - RBR M90

Artillery Shells



A shell is a payload-carrying projectile that, as opposed to shot, contains an explosive or other filling, though modern usage sometimes include large solid projectiles properly termed shot. (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.

Round 76 mm
Separate Loaded
for Gun 76 mm M48 B1



76 mm

NATO DESIGNATION

HE

SMOKE



DESCRIPTION	SHELL M55	SHELL M60
PROJECTILE WEIGHT (kg)	6.2	5.9
EXPLOSIVE (kg)	0.43	0.45
CARTRIDGE CASE (kg)	1.55	1.55
EXPLOSIVE TYPE	TNT	WP
PROJECTILE LENGTH (mm)	347	347
MUZZLE VELOCITY (m/s)	398	398
MAXIMUM RANGE (m)	8750	8750
FUZE	UTIU M68, UTIU M02, UTIU M03	UTIU M68
PACKING	ROUNDS IN CASE	
WOODEN CASE	3	
	GROSS MASS	
	39 kg	

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

NATO DESIGNATION

HE

HE

HE

HEAT-T

100 mm



DESCRIPTION	SHELL M63	SHELL M63 P1	SHELL M63 P2	SHELL M69
PROJECTILE WEIGHT (kg)	15.6	15.6	15.6	12.2
EXPLOSIVE (kg)	1.41	1.48	1.58	1
CARTRIDGE CASE (kg)	695	695	695	695
EXPLOSIVE TYPE	TNT	TNT	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 M03			UT - PE M69
PACKING	ROUNDS IN CASE			GROSS MASS
WOODEN CASE	2			21.8 kg



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

Round SEMI FIXED for HOWITZERS
M56, M2A1, M4 SEMI FIXED
for HOWITZERS M56, M02



105 mm

NATO DESIGNATION

HE

SMOKE

HE ER



DESCRIPTION	SHELL M1A1	SHELL M60	SHELL 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	TNT	WP	TNT
PROJECTILE LENGTH (mm)	496	496	565
MUZZLE VELOCITY (m/s)	491	491	675
MAXIMUM RANGE (m)	11620	11620	14000
FUZE	UTIU M72 B1, UTIU M02, UTIU M03		UTIU M02, UTIU M03
PACKING	ROUNDS IN CASE		GROSS MASS
SHELL M1A1 SHELL M60	WOODEN CASE		16.8 kg 50 kg
	2		

NATO DESIGNATION

HE ER

HE ER-BB

105 mm



DESCRIPTION	SHELL M56/M02	SHELL M56/M02
PROJECTILE WEIGHT (kg)	13	14.070
EXPLOSIVE (kg)	2.15	2.15
CARTRIDGE CASE (kg)	2.68	2.68
EXPLOSIVE TYPE	TNT	TNT
PROJECTILE LENGTH (mm)	565	565
MUZZLE VELOCITY (m/s)	675	670
MAXIMUM RANGE (m)	14000	17000
FUZE	UTIU M02, UTIU M03	
PACKING	ROUNDS IN CASE	
SHELL M56/M02	WOODEN CASE	
	2	
	GROSS MASS	
	50 kg	



Round SEMI FIXED
for HOWITZERS M56/33, M02



NAFO DESIGNATION	HE	HE	SMOKE	SMOKE
122 mm				
DESCRIPTION	SHELL TF-462A1	SHELL TF-462A1	M80	M80
PROJECTILE WEIGHT (kg)	21.86	21.86	21.76	21.76
EXPLOSIVE (kg)	3.60	3.60	3.50	3.73
CARTRIDGE CASE (kg)	3.66	3.66	3.66	3.66
EXPLOSIVE TYPE	TNT	TNT	WP	WP
PROJECTILE LENGTH (mm)	581	581	581	581
MUZZLE VELOCITY (m/s)	686	680	586	600
MAXIMUM RANGE (m)	12940	16300	12640	16300
FINES	UTRU M72 B1, UTRU M02, UTRU M03		UTRU M72 B1	



Round 122 mm SEPERATE LOADED for HOWITZER D-30, D30J, SP 2S1

Round 122 mm SEPERATE LOADED for HOWITZER M38



NAFO DESIGNATION	HE	SMOKE	
122 mm			
DESCRIPTION	SHELL TF-462A1	M80	
PROJECTILE WEIGHT (kg)	21.86	21.86	
EXPLOSIVE (kg)	3.60	3.60	
CARTRIDGE CASE (kg)	2.94	2.94	
EXPLOSIVE TYPE	TNT	WP	
PROJECTILE LENGTH (mm)	581	581	
MUZZLE VELOCITY (m/s)	616	686	
MAXIMUM RANGE (m)	11800	11800	
FINES	UTRU M72 B1, UTRU M02, UTRU M03	UTRU M72 B1	
PACKING	BOXES IN CASE		GROSS MASS
WOODEN CASE	2		11 kg

NAFO DESIGNATION	HE	HEAT	APFSD-T
125 mm			
DESCRIPTION	SHELL M86 P1	SHELL M86	SHELL M86
PROJECTILE WEIGHT (kg)	22	18	3.66
EXPLOSIVE (kg)	3.36	1.76	/
CARTRIDGE CASE (kg)	138	138	/
EXPLOSIVE TYPE	TNT / RDX	HMX	/
PROJECTILE LENGTH (mm)	673	678	581
MUZZLE VELOCITY (m/s)	880	906	1800
MAXIMUM RANGE (m)	12226	1610	2126
FINES	UTRU M86 P1	UT - PE M87 P1	/
PACKING	BOXES IN CASE		
WOODEN CASE	1		



Round 125 mm SEPERATE LOADED for TANK GUN D-81, TM (2A46)



Round 130 mm
SEPERATE LOADED
for GUN M-46



130 mm

NATO DESIGNATION	HE	HE
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	TNT	TNT
PROJECTILE LENGTH (mm)	671	671
MUZZLE VELOCITY (m/s)	930	705
MAXIMUM RANGE (m)	27490	13310
FUZE	UTIU M72 B1, UTIU M02, UTIU M03	
PACKING	ROUNDS IN CASE	
WOODEN CASE	2	
GROSS MASS		
18 kg		

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)	700	700
MUZZLE VELOCITY (m/s)	655	511
MAXIMUM RANGE (m)	17400	13400
FUZE	UTIU M72 B1, UTIU M02, UTIU M03	
PACKING	ROUNDS IN CASE	
WOODEN CASE	2	
GROSS MASS		
18 kg		

Round 152 mm
SEPERATE LOADED
for GUN-HOWITZER D-20

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

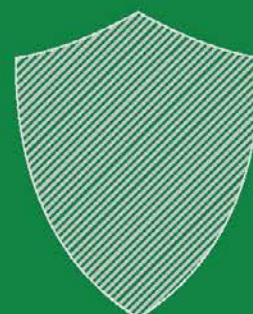


155 mm

NATO DESIGNATION	ERFB/BB	ERFB	HE
DESCRIPTION			
PROJECTILE WEIGHT (kg)	47.6	45.54	42.6
EXPLOSIVE (kg)	8.71	8.71	8
CARTRIDGE CASE (kg)	/	/	/
EXPLOSIVE TYPE	TNT / RDX	TNT / RDX	TNT
PROJECTILE LENGTH (mm)	861	843	807
MUZZLE VELOCITY (m/s)	925 (52 cal.)	925 (52 cal.)	925 (52 cal.)
MAXIMUM RANGE (m)	41850 (52 cal.)	34000 (52 cal.)	32000 (52 cal.)
FUZE	UTIU M02, UTIU M03		



Police Program



26,5 mm

DESIGNATION ABC LP 57 LP 57 PARACHUTE WHITE LP 57 RED LP 57 GREEN LP 57 SMOKE LP 57



SGNAL AMMUNITION
26.5 mm ABC/LP 57

DESCRIPTION / MODEL

LENGTH (mm)	170	155	80	80	80	80
HEIGHT OF CLIMBING (m)	200±25	85±15	120±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	20 000	10 000	/
COLOR SATURATION	/	> 78%	< 58%	< 70%	< 57%	/
MIDDLE WAVE LENGTH	/	589±3	580±3	609±3	554±3	/
FLARE TYPE	/	yellow	white	red	green	violet



PACKING	BOXES IN CASE	CARTRIDGES IN BOX	DIMENSIONS	GROSS 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

38 mm



DESCRIPTION / MODEL

	ONE PART	THREE PART	WHITE/RED/ GREEN			
LENGTH (mm)	70	70	70	123	123	137.5
MAXIMUM HEIGHT (m)	70	70	80	/	/	/
BURNING TIME (s)	5	5	5	/	/	/
LIGHT INTENSITY (Cd)	3 x 120 000	3 x 120 000	3 x 120 000	/	/	/
MASS OF CARTRIDGE (g)	/	/	/	120	180	190
NUMBER OF BALLS (pcs.)	/	/	/	28	/	/
MAX RANGE (m)	/	/	/	150	100	/
SOUND INTENSITY (dB)	/	/	/	/	/	120

PACKING	BAGS IN CASE	CARTRIDGES IN BAG
POLYETHYLENE BAGS IN CARDBOARD	20	10

DESIGNATION SMOKE STUN STUN AND FLASH

45 mm



HAND GRENADE
SMOKE, STUN, FLASH

DESCRIPTION / MODEL

LENGTH (mm)	130	130	130
DELAY TIME (s)	3	3	3
SMOKE TIME (s)	60	/	/
MASS OF GRENADE (g)	240	180	180
LIGHT INTENSITY (Cd)	/	/	200 000
SOUND INTENSITY (dB)	/	120	120



PACKING	BAGS IN CASE	GRENADES IN BAG	GROSS MASS
POLYETHYLENE BAGS IN WOODEN CASE	36	1	17 kg

SHOT CARTRIDGE ILLUMINATING



DESIGNATION ILLUMINATING

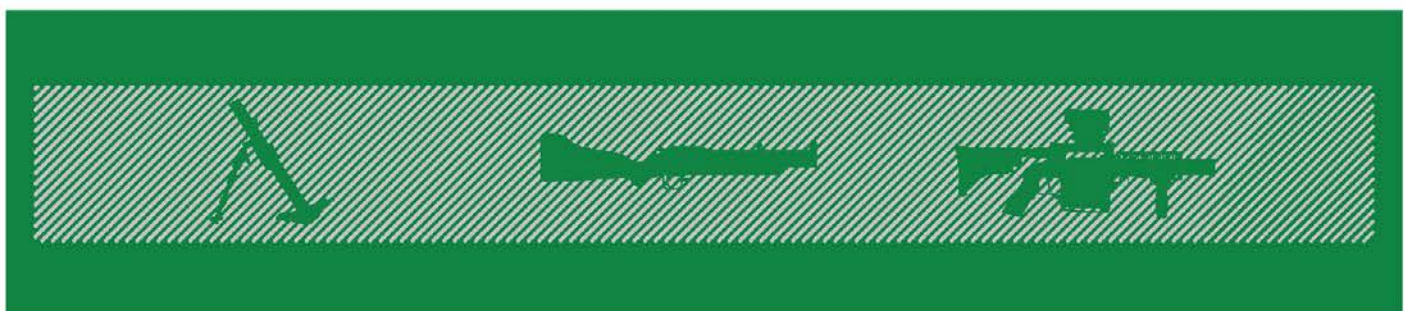
26,5 mm



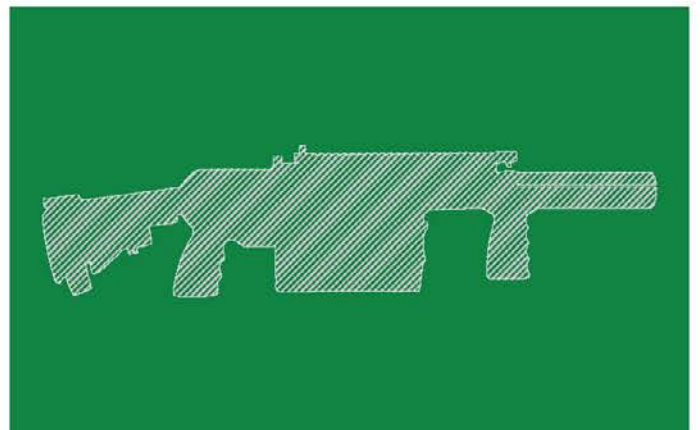
DESCRIPTION / MODEL

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	4	30 kg



Grenade Launchers



Grenade Launchers



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	smooth	smooth	/
TUBE LENGTH	250 mm	300 mm	250 mm
CHARGE	1 shell	1 shell	1 shell
THE LENGTH OF THE DRUM	130 mm	140 mm	130 mm
TYPE OF FIRE	single	single	single
TRIGGER MECHANISM	double action	double action	double action
WEIGHT WITHOUT AMMUNITION	4 kg	4.3 kg	3.8 kg
HEIGHT	< 250 mm	< 250 mm	< 250 mm
WIDTH	<100 mm	<160 mm	<100 mm
AMMUNITION	38 mm	38/ 55mm	40 mm
GUNPOINT DEVICES	mechanical	mechanical	mechanical
GUNPOINT PARTITION	50 - 150 m	50 - 150 m	50 - 350 m

HAND GRENADE LAUNCHER FLIP RBGP 38/1 mm M09-00; 38-55/1 mm M09-00, RBGP 40/1 mm M08-00

REVOLVER GRENADE LAUNCHER 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

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



ROCKET PROPELLED GRENADE LAUNCHER RBR7



HAND GRENADE LAUNCHER FLIP RBGP 38/1 mm M09-00; 38-55/1 mm M09-00; RBGP 40/1 mm M08-00



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

Mortars

MORTARS





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 m	1600 m
MIN RANGE	74 m	120 m	85 m
MAX TUBE PREASURE	422 bar	650 bar	250 bar
GUNPOINT DEVICES	NSB-3, NSB-1	NSB-3	mechanical NS
OPERATORS NUMBER	3 (4)	3	1+1



MORTAR 81 mm M69BK

MORTAR 82 mm M69A

MORTAR 120 mm M74



DESCRIPTION			
CALIBER	81.4 mm	82.14 mm	120 mm
WEAPON MASS	45 kg	45 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/min	12 rds/min
MAX RANGE	4943 m	6050 m	6440 m
MIN RANGE	88 m	120 m	85 m
MAX TUBE PREASURE	610 bar	650 bar	835 bar
GUNPOINT DEVICES	NSB-3	NSB-3	NSB-4B
OPERATORS NUMBER	4	4	1+4

Explosives

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.

OCTOGEN (HMX)



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

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.

HEXOGEN (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.

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.



Frag grenades
Smoke grenades
Protective masks



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-19 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. Can be used also in practice for handling with irritating devices or for simulation of variable activities at the site.

SMOKE HAND GRENADE 2, COLOR BD-2

Smoke hand grenade 2, color BD-2 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. 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.



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, vapours, 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 M3 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
Double based rocket propellant charges
Spherical powders
Powder charges

Mono-block powder charges for 155 mm rocket

Single based powders

SINGLE BASED POWDERS

For all kinds of ammunition from 5,56 to 166 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 166 mm cal.)

NC-01



APPLICATION:
Blank ammunition

CALIBER:
5,56x45 mm
7,62x39 mm

NC-04, NC-14



APPLICATION:
Powder charge

CALIBER:
126 mm

NC-03



APPLICATION:
"Browning"

CALIBER:
7,62 x 25 mm
7,65 mm
9x19 mm

NC-06



APPLICATION:
Shot shell,
hunting ammunition

CALIBER:
12/70
12/76

NC-261



APPLICATION:
Machine gun

CALIBER:
14,6 x 114 mm

NC-08



APPLICATION:
7,62 x 39 mm

NCD-02



APPLICATION:
Hunting ammunition

CALIBER:
7,62 mm

NC-07



APPLICATION:
57 mm M79 "Bofors"

NCD-06



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

NC-26



APPLICATION:
12,7 x 108 mm "B5K"

NC-27, NC-37



APPLICATION:
Powder charges

CALIBER:
M79, 122 mm
2946U, 192 mm

NC-09



APPLICATION:
ZA42 ZA72 Machine gun

CALIBER:
30 x 145 mm

NC-05



APPLICATION:
48 mm L/70 "Bofors"

NCD-27



APPLICATION:
Powder charge

CALIBER:
M442, 155 mm (ZONE 7)

NCD-191



APPLICATION:
Powder charges

CALIBER:
M79, 162 mm
M79, 152 mm, 145 mm,
APFSDB
M203, 166 mm (ZONE 9)
MC, 166 mm (ZONE 9)

NCD-09, NCD-21



APPLICATION:
Powder charges

CALIBER:
M47, M2A1
185 mm

NC-26



APPLICATION:
Powder charges

CALIBER:
M119A2 155 mm
M119A1 155 mm (ZONE 8)
MC 166 mm (ZONE 8)

NCD-19



APPLICATION:
Powder charges

CALIBER:
M92, 130 mm
M90, 152 mm
M11, 166 mm (ZONE 10)
MC, 166 mm (ZONE 10)

Double Based Rocket Propellant

PROPELLANT CHARGE FOR 86 mm AIRCRAFT ROCKET „S-800M“ AND „S-800“



APPLICATION: For anti-armor 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 640 mm behind an ERA.

MASS: 0.60 kg + 1.5 kg

EFFECTIVE (POINT BLANK) RANGE: 3.000 m

PROPELLANT CHARGE FOR 67 mm AIRCRAFT ROCKETS (S-6M AND S-6K)



APPLICATION: The rocket is a part of the 67 mm multi-tube rocket launcher system, on aircraft MiG-21, MiG-23 and MiG-27 and Mi-17 and Mi-24 helicopters, intended for neutralizing of enemy manpower and armored vehicles.

MASS: 1.13 (0.68) kg

EFFECTIVE (POINT BLANK) RANGE: 3.000 to 4.000 m

PROPELLANT CHARGE FOR 122 mm ROCKET „GRAB“



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

MASS: 20.3 kg

EFFECTIVE (POINT BLANK) RANGE: 20.000 m

PROPELLANT CHARGE FOR 120 mm ROCKET, M43 „FLAMEN-A“



APPLICATION: The rocket is a part of the LRSV 120 mm multi-tube rocket launcher system and self-propelled, multi-tube rocket launcher LRSV 120 mm, M43/94, intended for neutralizing of enemy manpower, weaponry and lightly armored targets.

MASS: 4.76 kg

EFFECTIVE (POINT BLANK) RANGE: 0.600 m

PROPELLANT CHARGE FOR 120 mm ROCKET, M10 „FLAMEN-D“



APPLICATION: The rocket is a part of the LRSV 120 mm multi-tube rocket launcher system and self-propelled, multi-tube rocket launcher LRSV 120 mm, M43/94, intended for neutralizing of enemy manpower, weaponry and lightly armored targets.

MASS: 4.23 kg

EFFECTIVE (POINT BLANK) RANGE: 12.700 m

PROPELLANT CHARGE FOR 80 mm AIRCRAFT ROCKET „S-100M“ AND „S-100“



APPLICATION: The rocket is a part of the LRSV 120 mm multi-tube rocket launcher system and self-propelled, multi-tube rocket launcher LRSV 120 mm, M43/94, intended for neutralizing of enemy manpower, weaponry and lightly armored targets.

MASS: 3.23 kg

EFFECTIVE (POINT BLANK) RANGE: 12.700 m

PROPELLANT CHARGE OF HAND ROCKET LAUNCHER 120 mm, M91 "POS-80"



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

MASS: 0.71 kg

EFFECTIVE (POINT BLANK) RANGE: 350 m

PROPELLANT CHARGES FOR HEAT PROJECTILES „P-77“, „P-77M“ AND „P-97“



APPLICATION: The hand grenade launcher is an individual infantry weapon for anti-armor battle at close distances, penetration of 330 mm to 600 mm of armor steel.

MASS: 0.14, 0.22, 0.47 kg

EFFECTIVE (POINT BLANK) RANGE: 900 m, 1.300 m

PROPELLANT CHARGE FOR ANTI-HAIL ROCKETS „PP-67S“, „PP-67K“, „PP-67“, „PP-67“



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 diameters are created.

MASS: 1.70 (1.95) kg

EFFECTIVE (POINT BLANK) RANGE: 4.000 m and 0.000 m

PROPELLANT CHARGE FOR 67 mm AIRCRAFT ROCKETS (S-6M AND S-6K)



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

MASS: 0.130 kg

EFFECTIVE (POINT BLANK) RANGE: 250 m

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 launcher
- Propellant charges for anti-hail systems

Spherical Powders

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
	SB 502	
	SB 503	CaL. 12/70
	SB 504	CaL. 12/76
	SB 505	50 g Magnum
	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

ADVANTAGES

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

ADVANTAGES OF THE CONTINUOUS PROCESS:

FLEXIBILITY:

Powder production meets different ballistic requirements and more uniform distribution of grain size is achieved.


SAFETY:

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


LOW COSTS:


Smaller investment funds and lower production costs.

	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 TYPE	POWDER PURPOSE
	SB 710	12.7 mm BROWNING

	POWDER TYPE	POWDER PURPOSE
	SB 508	Powder for grenades

	POWDER TYPE	POWDER PURPOSE
	SB 720	10 x 102 mm NATO VULCAN

	POWDER TYPE	POWDER PURPOSE
	SB 620	9 mm

Power Charges

POWDER CHARGES

CONVENTIONAL IN CLUSTERS FOR SYSTEMS FROM 105 mm TO 155 mm

105 mm: M2 M47



105 mm HOWITZER:
M2A2, M101/M101A1, M102, M2A1, M10A1, M56

122 mm: M2 M70 FULL CHARGE



122 mm HOWITZER:
D-30 Reduced charge

122 mm: M70 REDUCED CHARGE



FULL CHARGE
122 mm Howitzer: D-30

130 mm: FULL VARIABLE CHARGE,
REDUCED VARIABLE CHARGE



130 mm GMR:
M46 Full & Reduced charge

152 mm: M93, M99, Z-5400



152 MM HOWITZER:
D-20

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



155 mm HOWITZER SYSTEMS:
M1, M45, M119, GC-45, BMMA(39 col. / 45 col. / 52 col.)

MONO-BLOCK POWDER CHARGES FOR 155 mm HOWITZER "MORA 152"

MC ZONE 8 FOR 155 mm (POWDER MCD - 34)



TECHNICAL DATA:
• Projectile M107
• VE ~600 m/s; Pm ~1700 bar;
• Range 18.600 m

MC ZONE 9 FOR 155 mm (POWDER MCD - 191)



TECHNICAL DATA:
• Projectile EM70
• VE ~920 m/s; Pm ~2500 bar;
• Range 25.600 m

BI-MODULAR POWDER CHARGES



FOR 155 mm HOWITZER SYSTEMS

MC ZONE 10 FOR 155 mm (POWDER MCD - 19)



TECHNICAL DATA:
• Projectile EM70-03
• VE ~920 m/s; Pm ~3.200 bar;
• Range 41.100 m

COMBUSTIBLE COMPONENTS



CHEMICAL COMPOSITION:

- Nitrocellulose
- Trinitrotoluene

What we do

Digital Intelligence Services

1. Location Intelligence

In today's world, billions of devices are connected to the Internet; this connectivity generates vast volumes of data from various applications including metadata, GPS information, I.P Addresses and much more. Location intelligence in law enforcement involves analyzing geographic data to identify, predict, investigate and prevent crime patterns and hotspots.

2. LBS (Location Based Services)

* The Active solution can instantly locate specific targets (up to 50). However, this solution can only pinpoint the location of specific targets and has an accuracy range of 100-200 meters.

* The Passive solution. It allows for obtaining the geolocation of all subscribers in the network with an accuracy range of 25-200 meters.

3. Open-Source Intelligence (OSINT)

* In law enforcement, Passive OSINT allows law enforcement agencies to monitor social media, online forums, and other digital platforms to track criminal behavior, gather evidence, identify patterns of criminal activity, enhance investigations, support case development and ultimately improve their ability to combat crime and protect communities.

* In Politics, Active OSINT empowers politicians to influence public opinion through direct engagement. By actively participating in online discussions and media interactions to shape perceptions, clarify issues, and build credibility, ultimately affecting public opinion on various topics and change trends from negative to positive and vice versa.

4. CCTV AI Module

Utilizes advanced algorithms to identify and track faces or vehicle license plates, aiding in surveillance and security applications.

5. Secure Messenger

Ensures confidential communication, protects sensitive data, and maintains operational security amidst evolving digital threats.

6. Digital Forensics

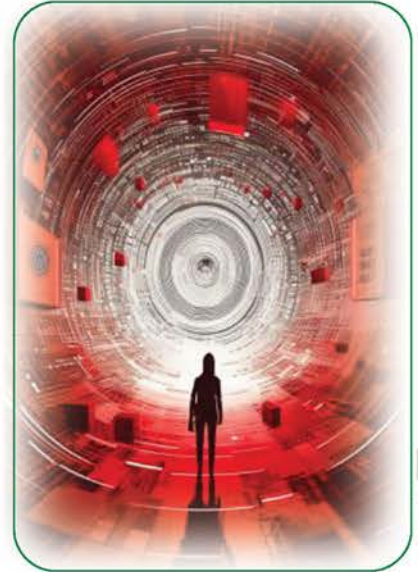
Extract, analyze, and leverage digital evidence crucial for uncovering threats, understanding adversaries, and safeguarding national security.

7. Surveillance & Counter-Surveillance

Detect or implant audio & video Bugs, protect against adversaries' monitoring, safeguarding classified information and operations.

Digital Intelligence

Products Overview



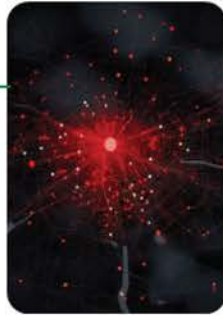
Digital Intelligence

Our Cutting Edge Solutions



Location Intelligence

Utilizes geospatial data for enhanced situational awareness and informed decision-making in their operations.



LBS

Leverages geographical data to track and analyze the location of devices or individuals for operational purposes.



OSINT

Unleash the potential of our OSINT solution for comprehensive information gathering and analysis, providing actionable insights for strategic decision-making and enhanced security.



CCTV AI Module

Utilizes advanced algorithms to identify and track faces or vehicle license plates, aiding in surveillance and security applications.



Secure Messenger

Ensures confidential communication, protects sensitive data, and maintains operational security amidst evolving digital threats.



Digital Forensics

Extract, analyze, and leverage digital evidence crucial for uncovering threats, understanding adversaries, and safeguarding national security.



Surveillance & Counter-Surveillance

Protects against adversaries' monitoring, safeguarding classified information and operations.



Cybersecurity

Cybersecurity products are vital defenses against digital threats, employing technologies like firewalls and antivirus software to safeguard systems and data from unauthorized access and attacks.





**A Revolution in Geospatial
Technology through an Innovative
Crowd Intelligence System;
Pioneering Counter Terrorism
and Crime Prevention.**

Dicon D7G creates behavioral analytics models that enable us to analyze the digital footprints of anonymous devices based on their movements and behaviors. These models reveal incredibly intelligent patterns.

Why DICON D7G

WHY DICON D7G

> Investigate



> Monitor



> Protect



> Predict & Prevent



DICON D7G

Detecting & Combating
most types of crime

Organised Crimes

Terrorism

Financial Crimes

Border Security

(Human trafficking, Weapons Supply, ...)

**Critical Infrastructure
Security**

Natural Disasters

Espionage

DICON D7G

Organized crime

Drug Trafficking

Drug dealing

Human Trafficking

Kidnapping

Banditry

Counter-Terrorism

Identify key players

Identify their locations

Terrorists' groups with sudden movements

Identify threat patterns

Track Terrorists' activities

Uncover hidden trends

Discover relationships

Critical infrastructure Security

- Real time insights into the status of critical infrastructure (Pipelines, Airports, Embassies,...)
- Illegal activities interception
- Predictive analysis
- Proactive threat detection & protection
- Logistics tracking

Financial Crimes

- TBML
- TBTF
- Money Laundering
- Corruption
- Fraud
- Tax Evasion

Financial Crimes

- Detect suspicious behavior at onboarding
- Mitigate transaction fraud and slash false positives
- Prevent account takeovers & account update fraud
- Investigating Corruption Networks
- Identifying Asset Locations
- Tracking Financial Flows

Border Security

- Protect your borders 24/7 and get alerted by any trespassers
- Identify & protect critical premises (geofencing)
- Tracing illicit supply chains (weapons, ...)
- Demonstrate trafficking routes
- Identify smugglers and their inter countries activity

DICON D7G Concept



Global Visibility



**Correlation with
multiple data sources**



Offline System



**Friendly graphical
user interface.**



**Giving the investigator
the ability to achieve
technical tasks.**



Navigating in time.



**Control access
to information**

Friendly graphical user interface



Synchronize different platforms among agencies



Different Data modules under ONE suite



No need for technical skills

Offline system



Standalone server.



No internet connection is needed.

Global visibility



Data insights beyond borders.



Manage a large amount of data (Up to 100,000 application feeding mobility Data Daily Integration of 50 billion records...).



Data includes almost all countries.



No need for traditional cooperation with local service providers.

Investigator's ability to achieve technical tasks



No need for sophisticated QUERIES.



The investigator can do everything.



Imagination is the limit.



Reduce your circle of confidentiality.

Technology, Big Data & AI

Handling

Handling structured and unstructured types of data

Ingesting

Ingesting the large amount of data in a measurable time

Executing

Executing any query or scenario in matter of seconds

Performing

Performing complex predefined scenarios in the background

Flagging suspicious devices or entities

Providing

Providing alerts and daily threat analysis reports

Navigating in time: Backward & forward investigations



Understanding the past

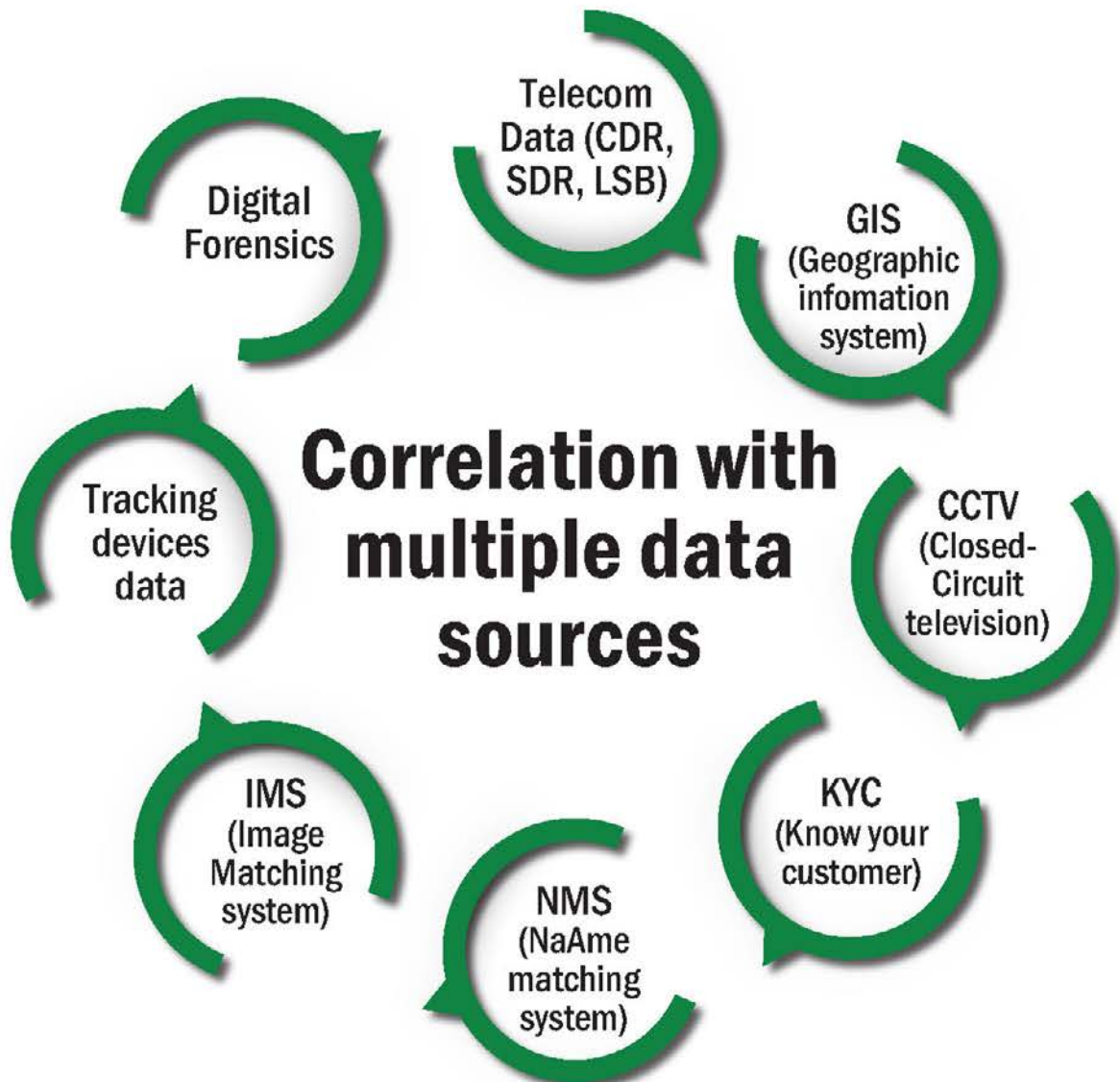
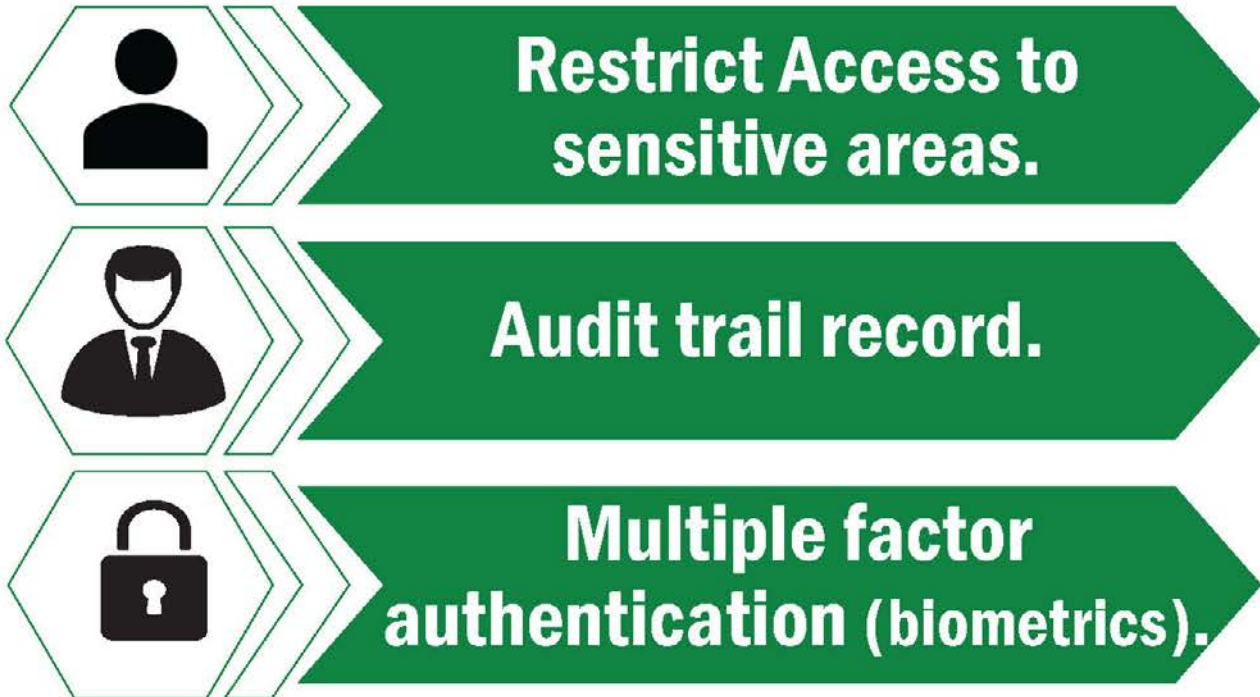


Analyzing the present

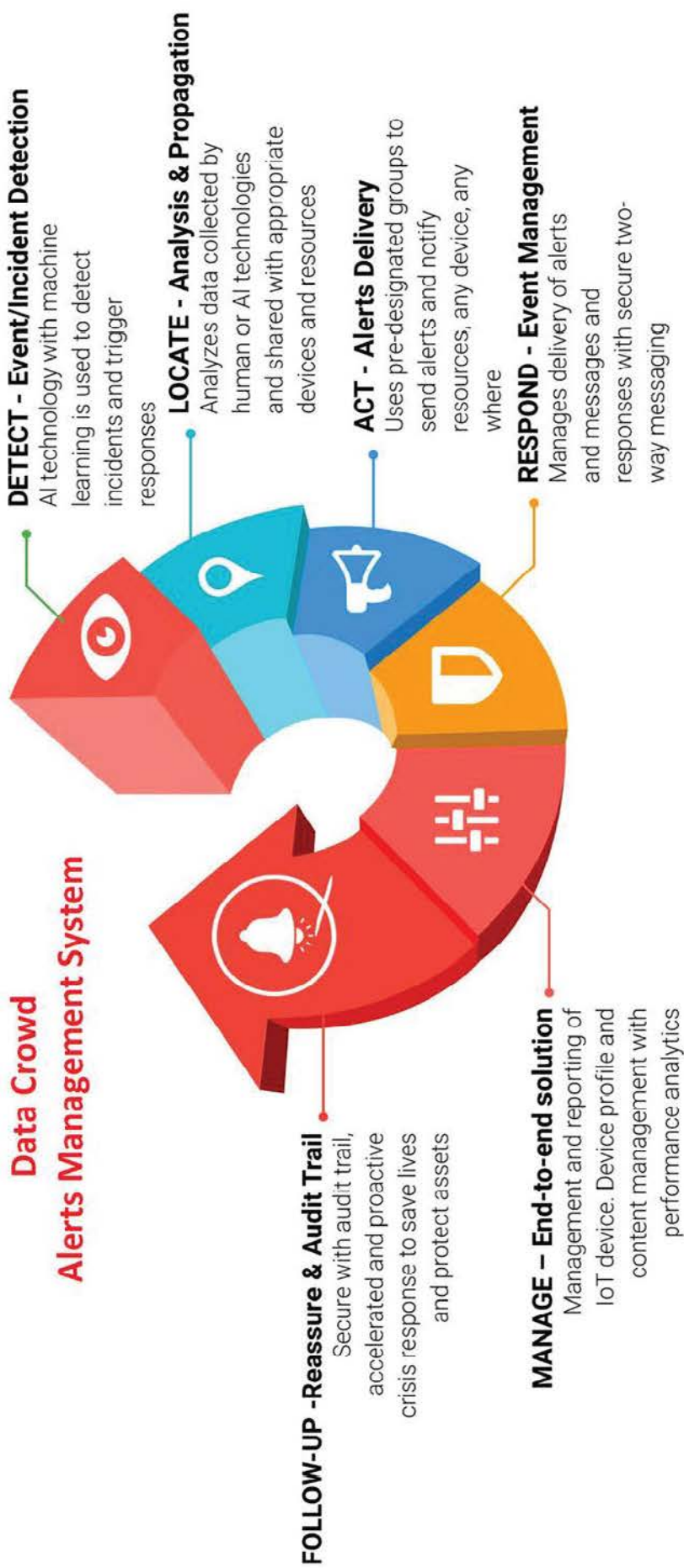


Predicting the future

Control access to information



DICON D7G Alert management



**Data Transfer
through online
platform (gcp, aws,...)**



**Downloading
Data from
Private Clouds**

Cloud

**No connection
needed between**

**VCIS Data Servers
and deployed
platforms**



**DICON D7G
Data Services**



**Law Enforcement
Agency**

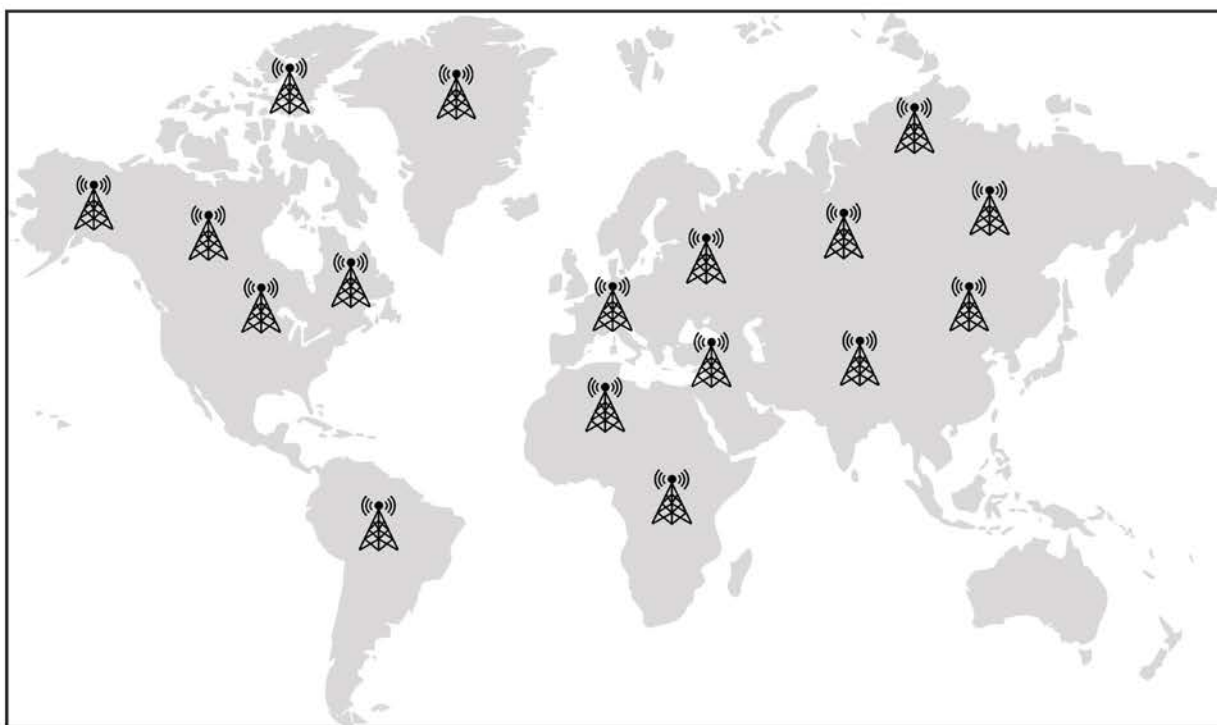
LBS Active & Passive

Active

- Locate specific targets (Usually Up to 50+ targets)
- The accuracy is between 50-200 meters
- Is able to obtain the location of specific targets only
- NO Previous Historical Records

Passive

- Obtain all subscribers location
- Visualize on a dynamic map
- The accuracy is between 25-200 meters
- Detect whether the user is inside the house or in an open space



1

Location Accuracy

Our product guarantees top-tier location accuracy, harnessing innovative methods for precise and reliable positioning.

2

Dynamic Maps

Revolutionize your navigation experience with our dynamic maps product, providing real-time updates and interactive features for seamless exploration.

3

Data Visualization

Experience the power of seamless data visualization with our product, enabling the comprehensive analysis of large datasets at once.

4

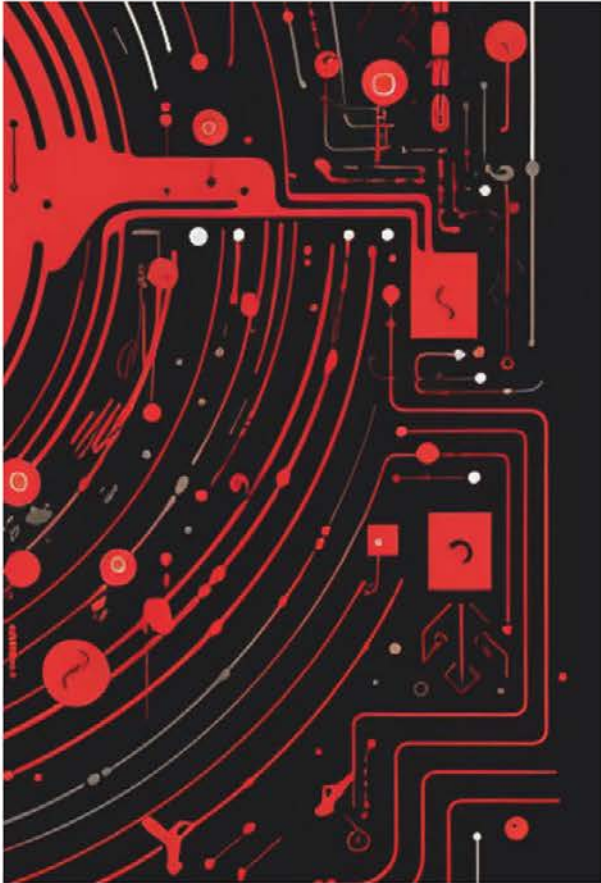
Load Efficiency

Our product excels in efficiently processing vast data volumes, ensuring swift and accurate insights for optimal decision-making.

OSINT Open Source Intelligence

Intelligence-Driven Decisions

Support decision-making, threat assessment, and strategic planning.



Analyze Large Sets of Data

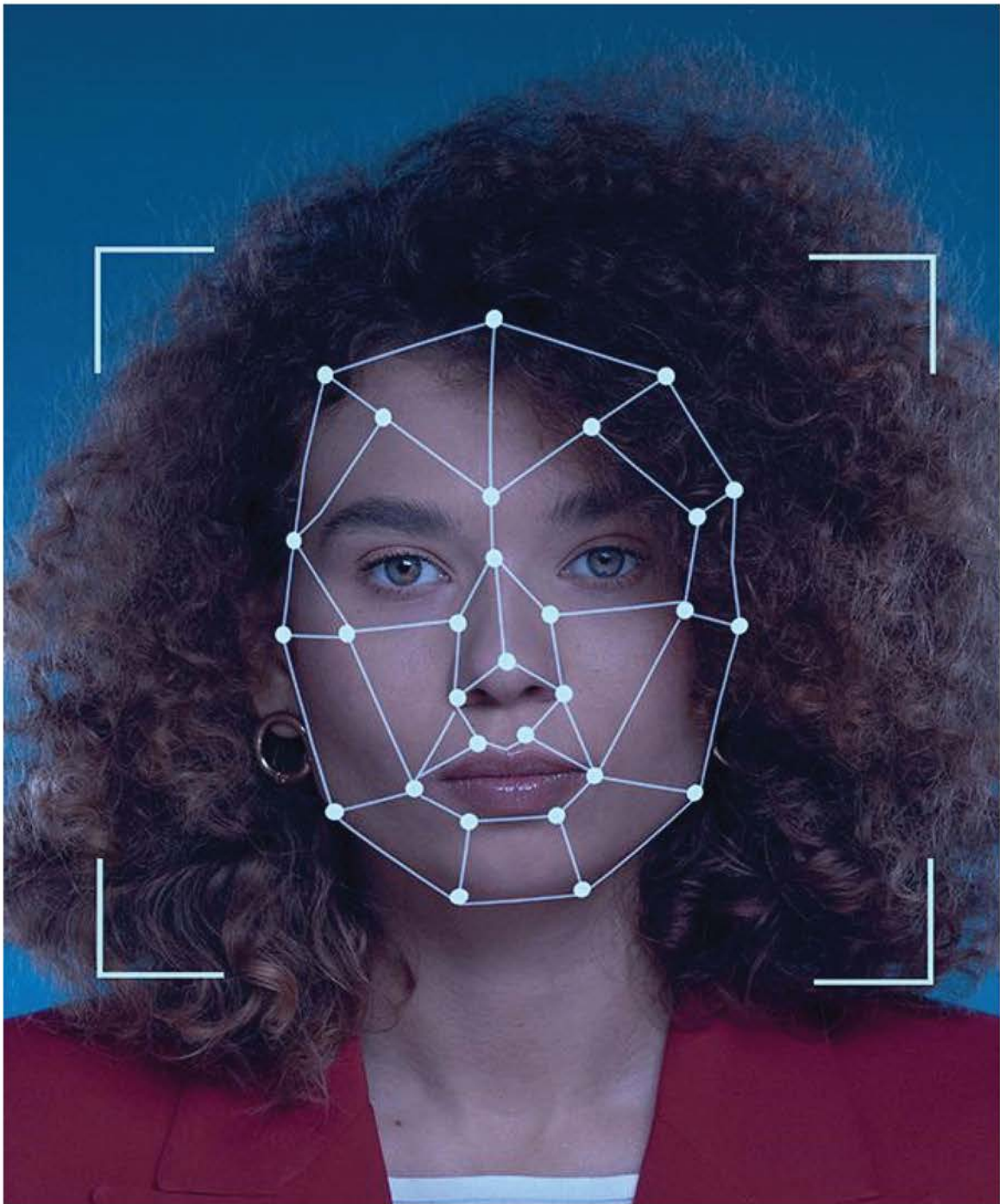
Gather, analyze, and interpret publicly available data from Social Media, TVs, Websites, Newspapers, Chat Groups, Blogs & many others.

- **Real-time Insights:** OSINT offers current information for swift decision-making.
- **Threat Analysis:** Helps agencies proactively analyze potential risks and monitor activities.
- **Strategic Planning:** Contributes to effective strategies based on open source intelligence.
- **Timely Response:** Enables quick responses to emerging threats and incidents.
- **Collaboration:** Facilitates information sharing among security agencies and stakeholders.

OSINT Open Source Intelligence

CCTV AI Engine

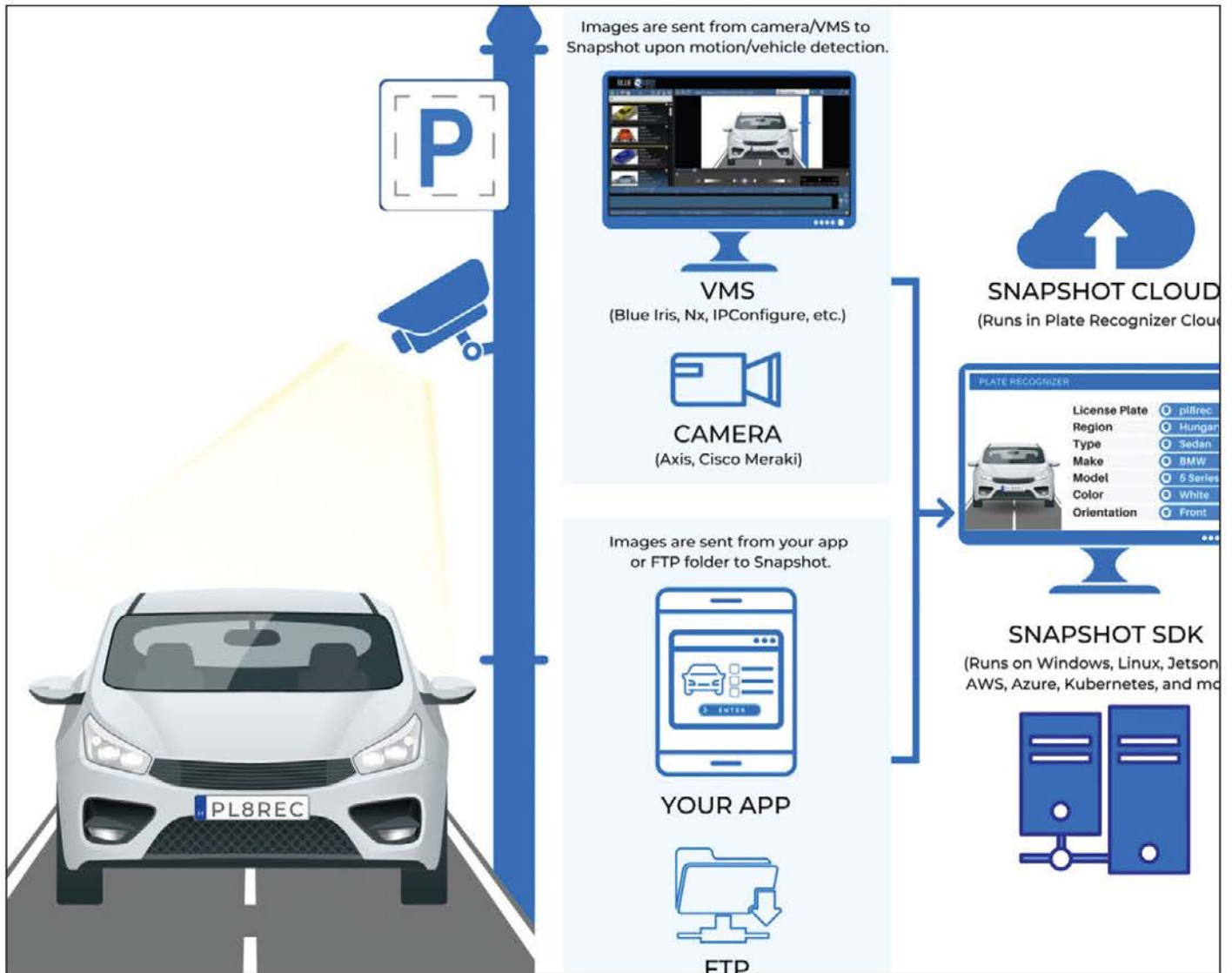
Face Matching & Recognition



CCTV AI Engine

- Enables search and reporting from vast amounts of video.
- Locates person of interest faster.
- Suitable for static and non-static video (mobile, CCTV, body worn etc.).
- Imports video with faces present.
- Detects faces in video & images quickly.
- Matches faces to suspect list.
- Exports out all faces found in video quickly.

ALPR (Automatic License Plate Recognition)



ALPR System assists in:

- Tracking Suspects.
- Identifying and locating vehicles involved in criminal activities.
- Monitoring and tracking vehicles crossing international boundaries.
- Analyzing patterns, tracking vehicle routes, and identifying associations between different vehicles.
- Identifying stolen vehicles, unregistered cars, or vehicles linked to wanted individuals.
- Threat detection by flagging vehicles associated with potential security risks.

Secure Messenger



100%

Your Own The Code

Our product stands out by offering full ownership of the source code, granting users unparalleled control and adaptability. With the ability to customize and enhance the software independently, businesses gain flexibility, security, and long-term value. This unique feature ensures a strategic advantage, empowering users to shape the product according to their evolving needs.

100%

Your Own Infrastructure

Our product is uniquely hosted on self-owned infrastructure, guaranteeing users a secure, reliable, and fully controlled environment. With increased data privacy and reduced external dependencies, this approach not only ensures optimized performance but also instills confidence in users that their operations are within their complete control.

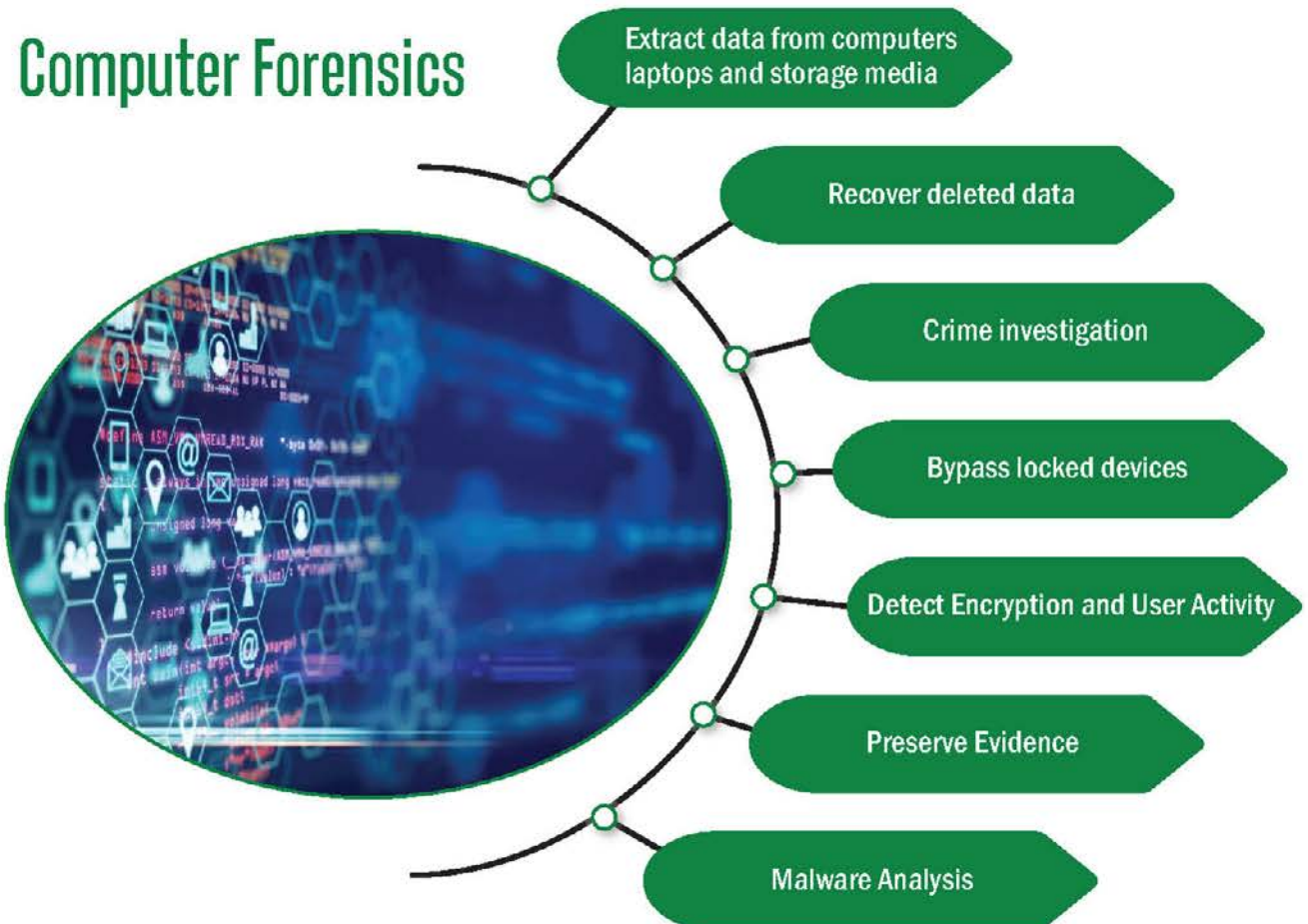
100%

Our product employs military-grade encryption, employing state-of-the-art algorithms to secure sensitive data with maximum effectiveness. Users can trust that their information is protected at the highest level, providing peace of mind and robust security against potential threats.

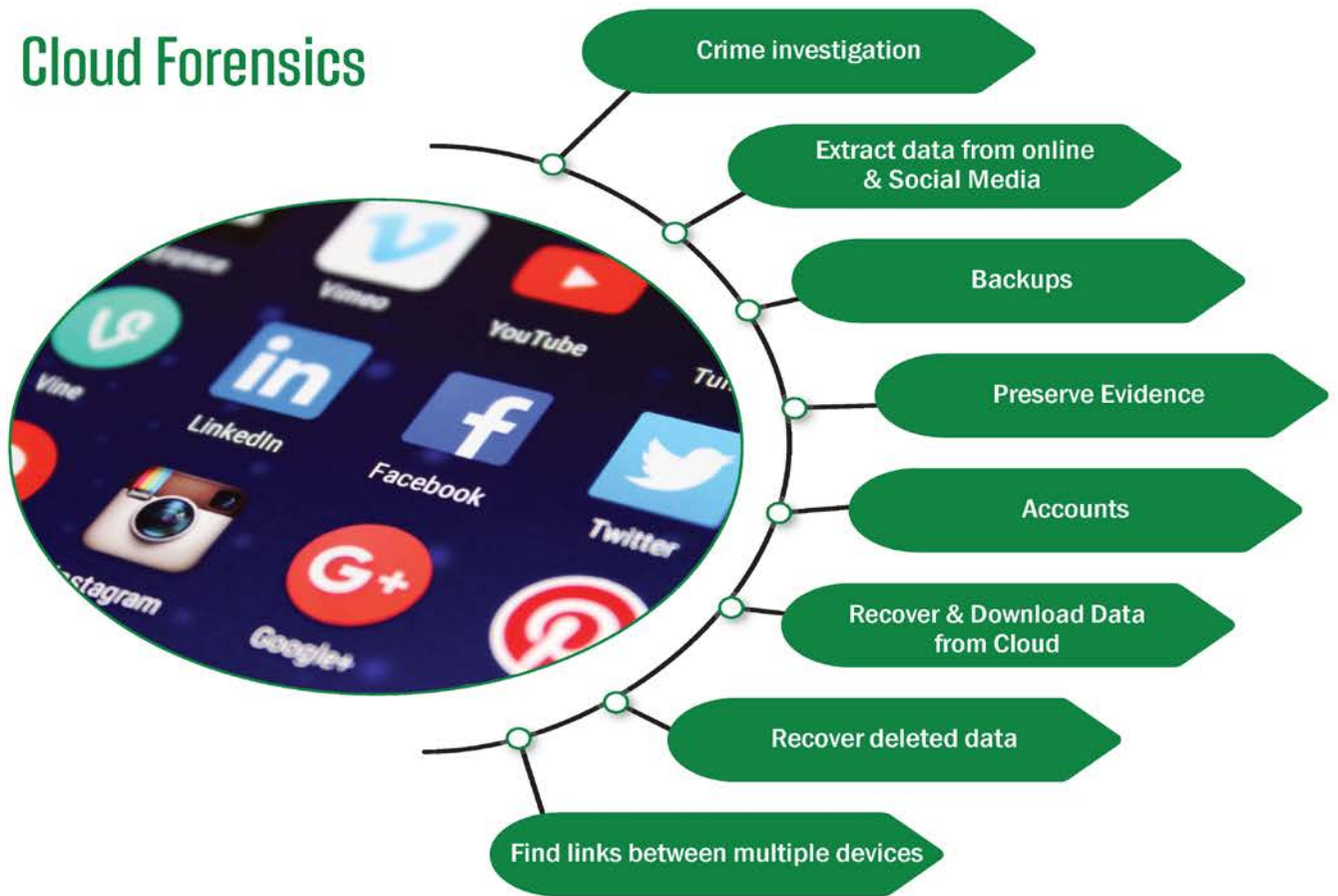
Mobile Forensics



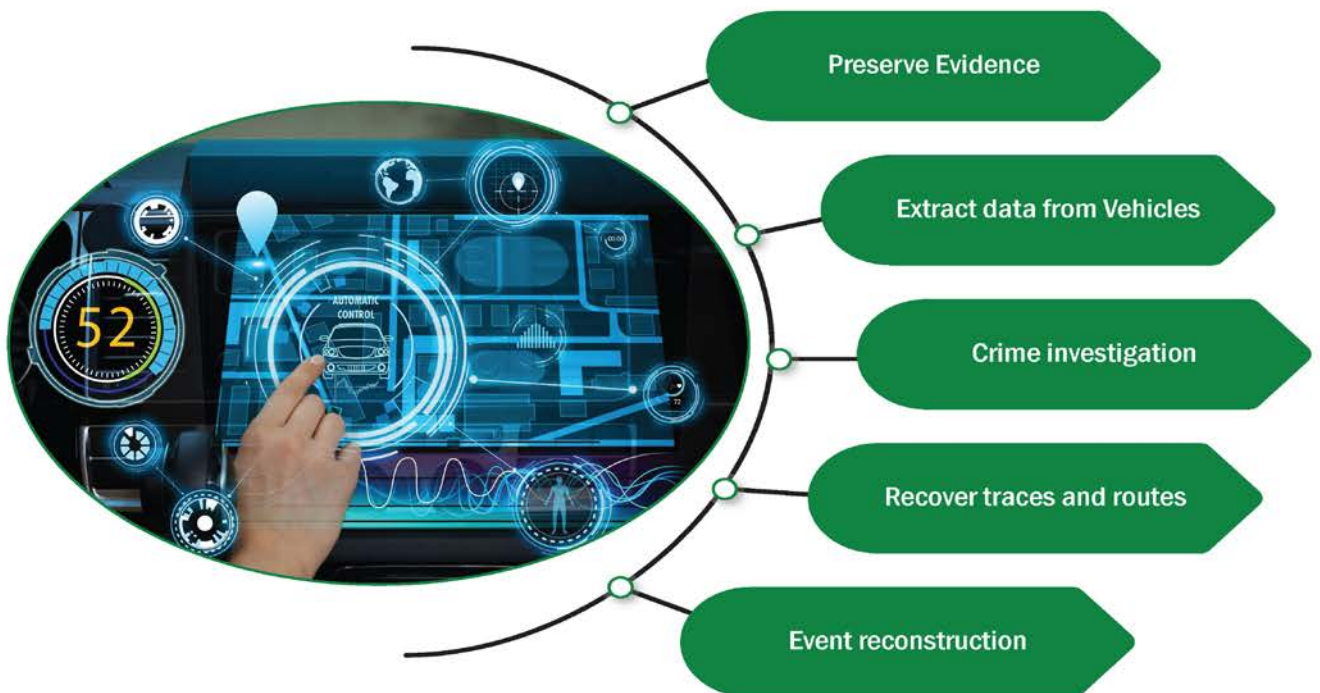
Computer Forensics



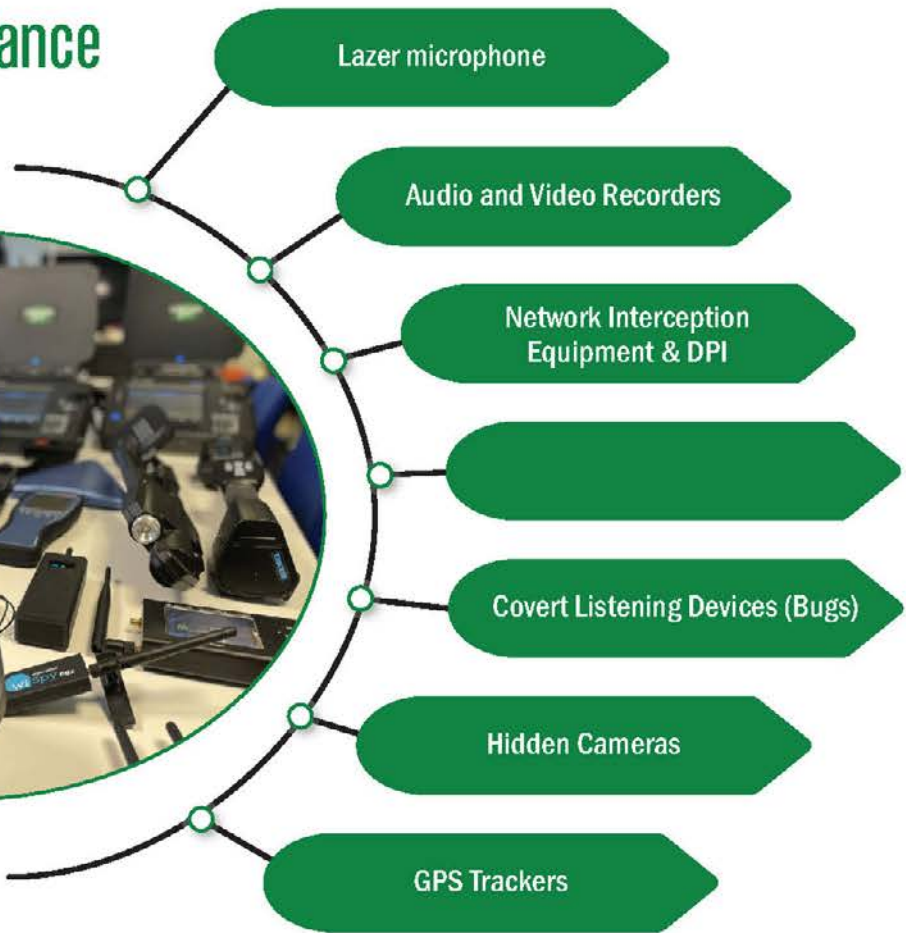
Cloud Forensics



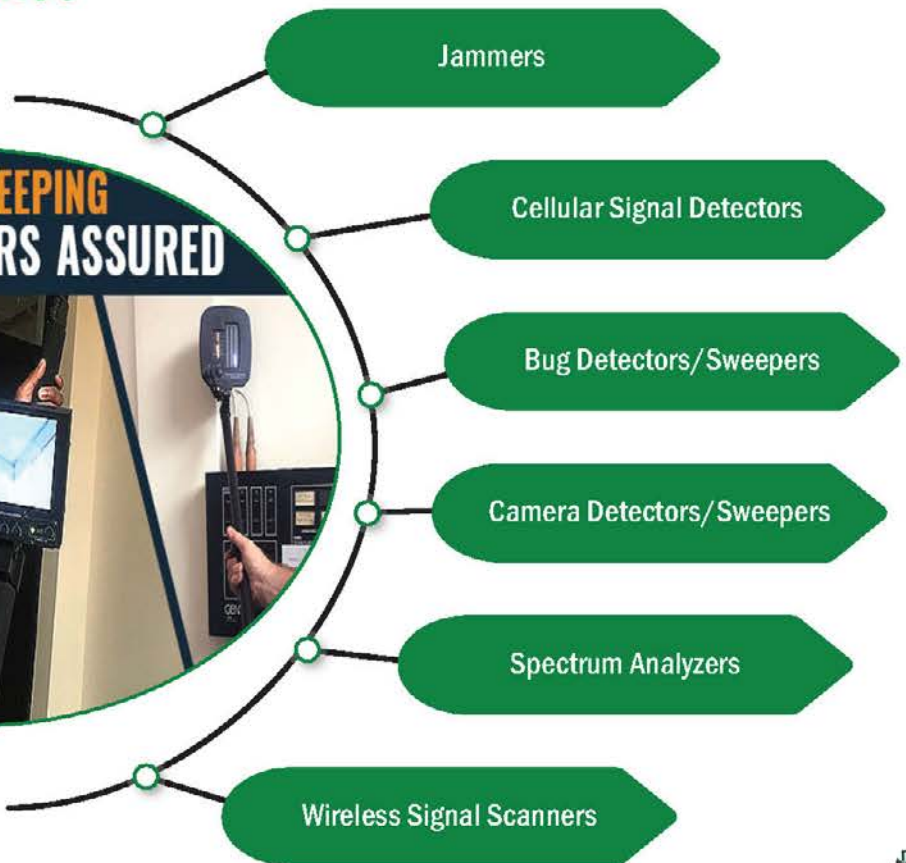
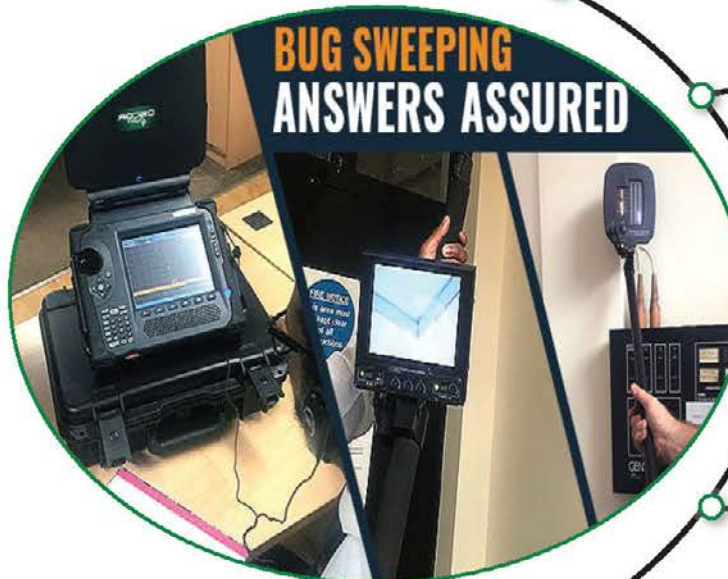
Vehicle Forensics



Technical Surveillance



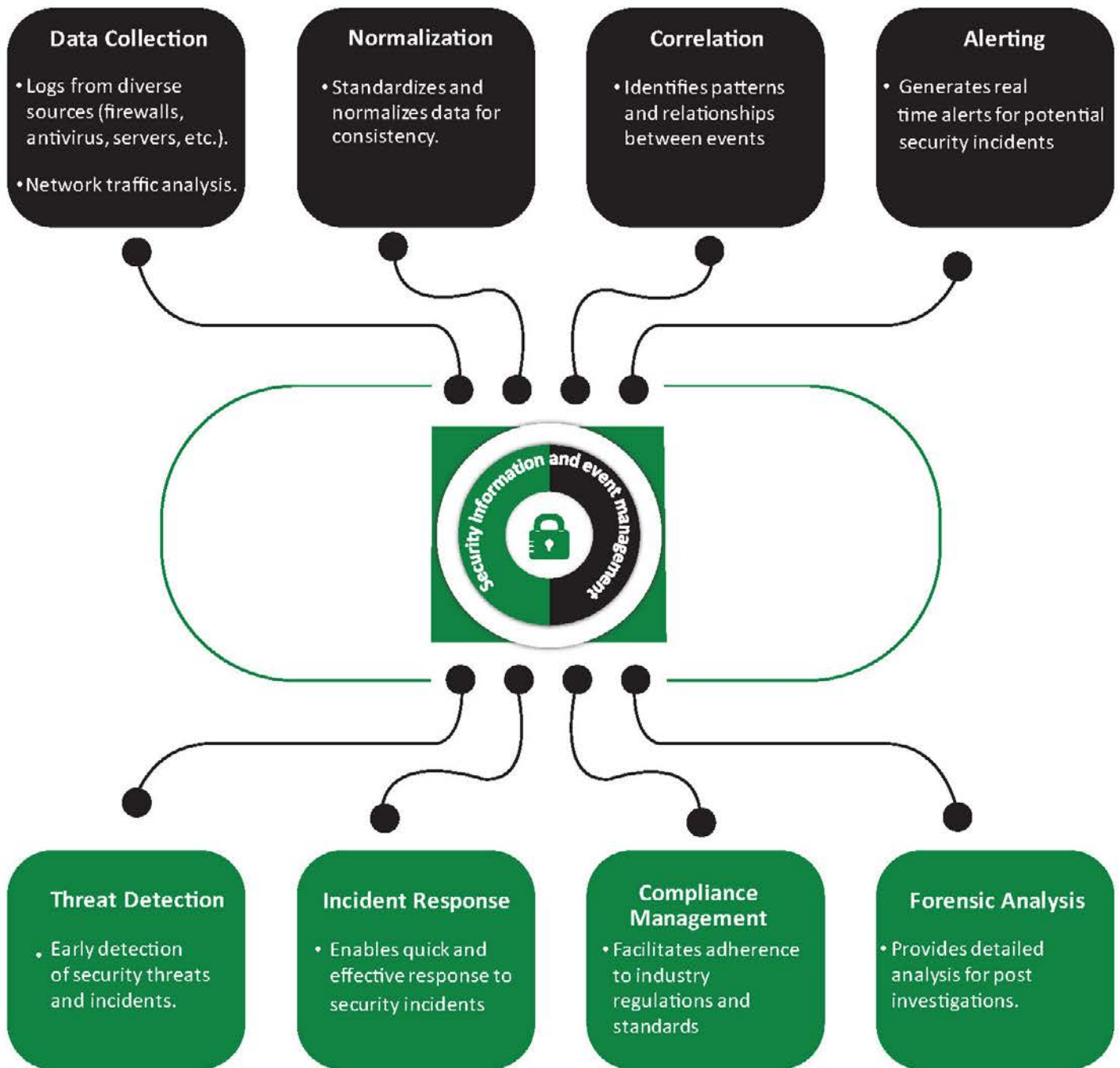
Counter-Surveillance



SIEM

Security information and event management

Components of SIEM



Why SIEM Matters

EDR

Endpoint Detection & Response

Advanced Threat Detection

Identifies and responds to sophisticated threats
Examines the reputation of files and processes, identifying potential threats based on historical data and behavior.

Reduced Dwell Time

* Implements automated response actions to minimize manual intervention and reduce the time it takes to neutralize threats.

* Proactively searches for threats on endpoints, helping to identify and mitigate potential risks before they escalate.

Endpoint Visibility

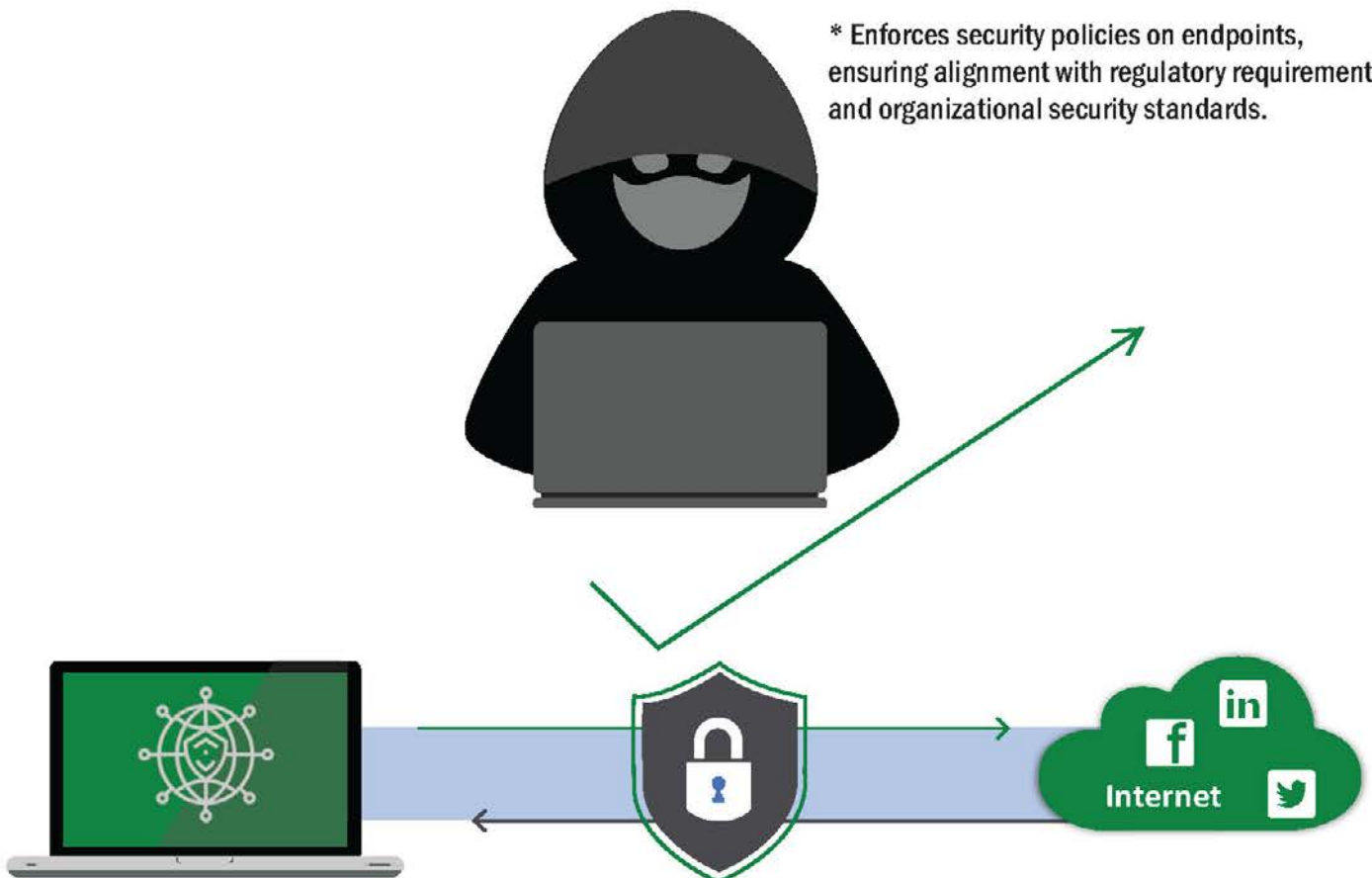
* Maintains an updated inventory of all endpoint devices, providing a comprehensive view of the organization's attack surface.

* Analyzes user behavior on endpoints, detecting anomalies and potential insider threats through advanced analytics.

Compliance Assurance

* Generates detailed audit trails of endpoint activities, aiding in compliance audits by providing a verifiable record.

* Enforces security policies on endpoints, ensuring alignment with regulatory requirements and organizational security standards.



Penetration Testing

Penetration Testing

Objective: Identifying Weaknesses

Systematically uncover vulnerabilities in software, hardware, and network configurations. Prioritize weaknesses based on potential impact and exploitability.

Approaches: Diverse Testing Methods

Black Box Testing:

Simulates external attackers with no prior knowledge of the target system.

White Box Testing:

Assesses the system with full knowledge of internal architecture and code.

Gray Box Testing:

Strikes a balance, providing partial knowledge for a realistic perspective.



Value Proposition: Proactive Security Measures

Risk Mitigation:

Prioritize and address high-risk vulnerabilities.

Compliance Adherence:

Support regulatory compliance with effective security controls.

Trust Building:

Demonstrate commitment to security, building trust with clients and stakeholders.

Process: Step-by-Step Exploration

Planning and Reconnaissance:

Define scope, gather information, and understand the target environment.

Gaining Access:

Attempt to exploit vulnerabilities and gain unauthorized access.

Evaluate impacts, document findings, and provide detailed reports.

SOC Services

Security Operation Center



Skill Shortage

58% of organizations believe they have a problematic shortage of cybersecurity skills, impacting the effectiveness of their cybersecurity posture.



Outsourcing

21% of organizations outsource their SOC functions partially or entirely to third-party providers.

\$215 Billion

Cybersecurity Spending

Worldwide spending on information security and risk management technology was projected to reach \$215 billion in 2024, indicating a continued increase in investment.

Outsourced SOC Benefits

Cost Efficiency:

- * Avoid upfront costs for infrastructure and technology.
- * Benefit from economies of scale and shared resources.

Access to Expertise:

- * Tap into diverse cybersecurity skills and experience.
- * Ensure 24/7 monitoring and response with dedicated professionals.

Advanced Technologies:

- * Access state-of-the-art cybersecurity tools and technologies.
 - * Ensure regular updates to combat evolving threats effectively.

Focus on Core Business:

- * Emphasize core business functions with internal teams.
- * Mitigate security risks with dedicated experts, fostering business growth.



Virtual CISO



1 | Leverage seasoned cybersecurity experts for strategic direction.

2 | Develop and implement a risk management strategy aligned with your organization's specific needs.

3 | Access CISO-level expertise without the cost of a full-time executive.

4 | Swiftly deploy strategic cybersecurity measures with immediate effect.

Marine smuggling and dark vessels

Introduction

Criminals have become increasingly adept at taking advantage of people's need to move and their limited choices for doing so, to generate enormous illicit profits by facilitating unsafe migration. Migrant smuggling has been the focus of significant international laws and policies owing to the particular dangers posed to migrants smuggled in perilous conditions at sea. Smuggling by sea has been detected in several regions, including the Gulf of Aden, the Pacific Ocean, the Bay of Bengal, the Andaman Sea and the Mediterranean Sea. Smugglers often increase their profits by reducing safety and keeping conditions poor on board, which usually means cramming people into unseaworthy, disposable vessels.

Tracking vessels with automatic identification systems (AIS)

International waters are governed by the International Maritime Organization (IMO). The IMO requires all ships to use an automatic identification system (AIS). AIS uses the vessel's GPS or sensor built in to the AIS unit to transmit information including:

- * the vessel's name, unique marine identity number and call sign
- * the type of vessel (fishing, cargo or passenger)
- * the vessel's size
- * the vessel's position on the sea
- * its course of travel and speed.

The AIS broadcasts the vessel's position continuously – every 2–12 seconds in order to avoid collisions at sea. Satellites pick up this information and relay it to ground stations, so even vessels in remote parts of the ocean are tracked.

Dark vessels

Vessels that do not want to be tracked switch off their AIS systems. They 'go dark' and are known as dark vessels. The ships may also be involved in transferring illegal goods or smuggling drugs or people. All illegal activities are carried out by dark vessels.

Unlike registered boats, dark vessels don't have identification systems so they can't be tracked. With radar imaging, every boat on the ocean becomes visible, regardless of weather conditions or restricted waters. Cross-checking against registered signals reveals which ships don't belong.

To be able to identify and track dark vessels an intelligent system comprised of Radar, a Frequency direction finder and an AIS transponder is mandatory.

Protecting the territorial waters

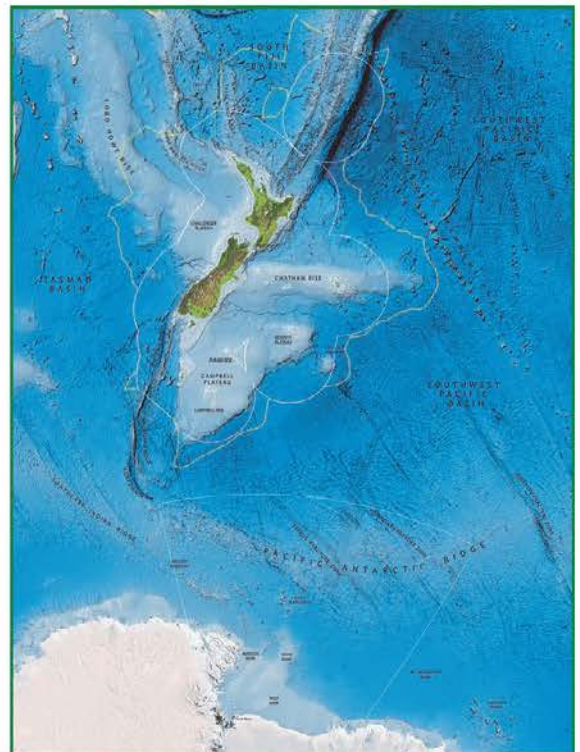
Countries that border the sea have territorial waters. A very long time ago, this distance was 3 nautical miles (about 5.5 km) – the range of a cannon shot! In more modern times, the distance was 12 nautical miles (nmi) until 1982 when the United Nations established an international framework to create exclusive economic zones (EEZ) that stretch 200 nmi from the coastline.

To protect the territorial water a special system should be used in order to be able to first identify the dark vessel and then be able to locate them. In order to be able to do that we need three systems:

- * Radar
- * Direction Finder with the control station.
- * Automatic Identification System Transponder.

Synthetic aperture radar (SAR)

Instruments on board are very essential in determining the presence of dark vessels. SAR emits radar waves that strike the steel surface of a vessel and then ping back. SAR has real advantages over optical imagery (photos) – it isn't blocked by clouds and it does not require someone to be able to see a vessel amongst the camouflaged background of the waves. The solution includes also an automatic localization system of the radio signals on the emergency channel, an aiding system for the search area and search paths calculation and a coordination console that assists the Coast Guard operator during SAR phases by visualizing search paths and the last known position of the vessel in distress.



Localization

An intelligent system could detect and localize the vessel in the sea by monitoring the radio channel activity. Radio communications often occur so that an intelligent observer which looks from different locations could localize the vessel by signal direction detection. To this aim a radio direction finder (RDF), that is a device for finding the direction of an incoming radio signal, may be a useful tool. The Radio Direction Finder checks the signal strength of a directional antenna pointing in different directions. While old devices used a simple rotating antenna linked to a degree indicator, new devices use a dipole antenna to detect the signal.



In the past the RDF was used during the war to detect and identify secret transmitters in large region. The same idea can be applied to the different scenario of marine case. A group of RDFs controlled by an intelligent system can detect a distress signal and localize the source before that a communication between human beings even starts. The system we developed, is also able to track vessel movements after its first identification (tracking feature). The detection range can be increased by the installation of new units along the coast. The intelligent system is composed by a society of intelligent agents which collaborate in monitoring radio frequencies, in matching the detections, in notifying every request. The system normally listens to the maritime radio emergency channels and whenever a signal is detected, a search of possible matches is looked for. When a match is found, the agents notify the discovery to other agents

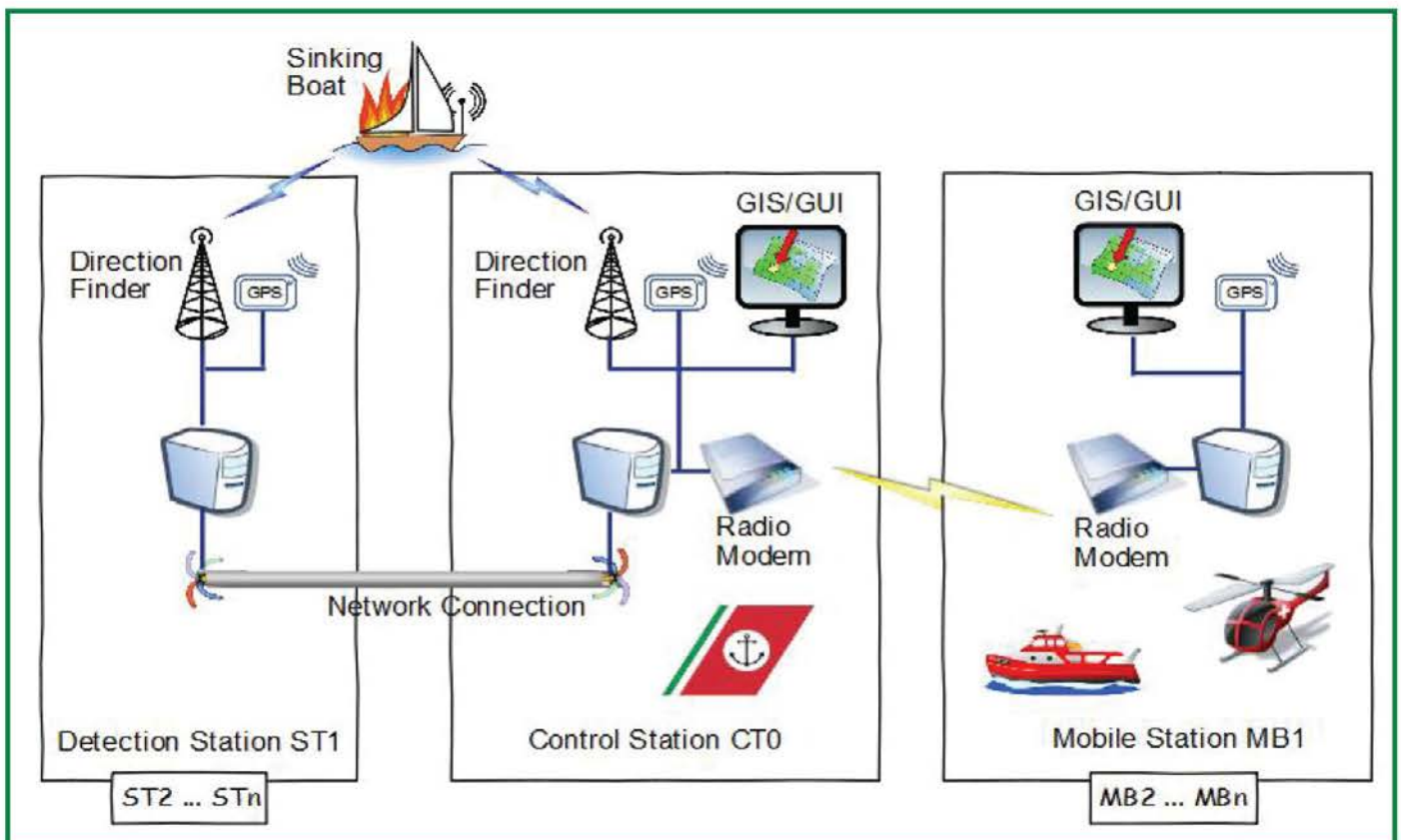
responsible for other system and to the Coast Guard personnel. When the source of the signal (the vessel) and the two detection stations are not aligned, a geometric triangulation gives the vessel position. The triangulation is computed between the direction vectors detected by the two stations. Of course, two vectors are necessary and sufficient but other ones may be used to improve the precision of the localization. Precision is in fact limited by the small error on the identification of the observed signal direction. The degree error becomes an estimated position error that is proportional to the distance between the source and the detection stations. In Figure 1 we show the simplest scenario where a dark vessel sends a signal that is in turn detected by a couple of coast stations. After the detections, the intelligent agents share that information and localize the source of the signal. In figure 1 we show the two vectors and the two angles used for triangulation. In the system there are two different kinds of stations:

Detection stations are unmanned and the only host hardware and software devoted to receive the radio signal and identify its direction. Control stations are manned and they host a complete hardware-software system thus including the capability of receiving information from detection stations, performing triangulation and supporting SAR operations as described in the next subsection. Usually there is one control station responsible for each sea area according to Coast Guard procedures. Each detection station sends the following data to the control station:



- * the radio channel of the signals obtained from detection finder
- * the direction of the signal
- * the position of the station

The time of detection the position and the time of detections are very useful to match detections from several stations. Of course, two detections of the same signal have a very similar detection time. The detections should be stored in an archive to solve problems about communication delays. In order to match a signal, the system searches a very similar detection from another station occurred in a fixed time window; the match with highest score is selected and used to compute the triangulation. So far, the computed localizations are sent to a GUI-GIS platform which shows a map to support the detection and finding of the dark vessel. The operator can update the data about any vessel shown by Fig. 1.



Air Defense Systems

ŞAHİN 40 MM HARD-KILL SYSTEM

- > REMOTE CONTROL
- > AUTOMATIC TARGET DETECTION AND TRACKING
- > HIGH ACCURACY STABILIZATION
- > FIRE CONTROL ALGORITHMS
- > 40MM HIGH SPEED AIRBURST AMMUNITION USE
- > EFFECTIVE AGAINST MINI/MICRO UAVS
- > ADVANCED USER INTERFACE



İHTAR MOBILE ANTI-DRONE SYSTEM

- > RADAR SYSTEM
- > RF COUNTERMEASURE SYSTEM
- > ELECTRO-OPTIC SYSTEM
- > COMMAND AND CONTROL SYSTEM



AURA-200G





Multifunction Surveillance Radar

AURA-200G



SYSTEM FEATURES

-  Active Electronically Scanned Array (AESA) Antenna
-  3D, Multiple simultaneous detection and tracking
-  Instrumented Range: > 25 km
-  High accuracy and resolution
-  Adaptive and High Update Rate
-  Single Antenna 90°; 4 Antenna suit 360° Continuous Scanning and Data Fusion
-  Multi-target tracking & automatic target classification
-  User Defined Alarm/Friendly Zone Selection & Sector Blanking
-  Remote Control & Digital Map Overlay

-  Integration to electrooptics and jammers
-  Multi-mission modes and Integration to V-SHORAD Applications
-  TCP/IP Ethernet Interfaces
-  MIL-STD-810G and MIL-STD-461F



Aslan 150M2/G



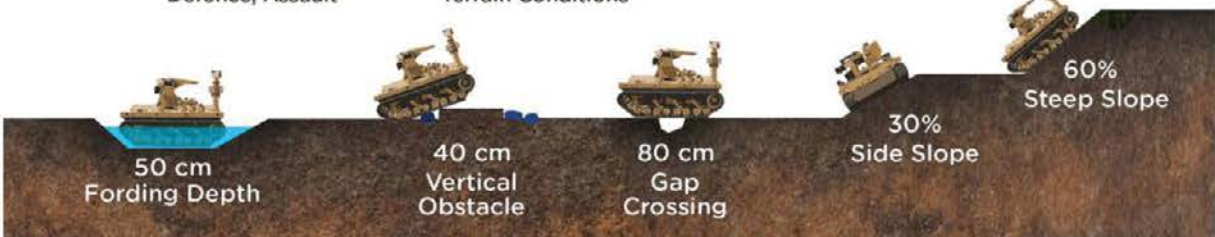
Capabilities



- 3000 kg Weight
- 20 km/h Maximum Speed
- Hybrid Motor
- Armor Protection



- SARP Dual Weapon System
- Telescoping Surveillance System with Mast
- Remote Control of All Functions
- Autonomous Mobility and Mission Capabilities
- Wireless/Wired and 4G/LTE Communication
- Countermeasure with Smoke Grenade Launcher
- Backup Power Unit (Generator)
- Load Case and Load Carrying Kit for Logistics Purposes
- Carrying Trailer and Lifting Lugs for Transportability Purposes





Aslan 150M2/G

ALKAR 100/81

100/81



81 mm MORTAR WEAPON SYSTEM

-  Indigenous and Original Design
-  Modern Weapon System Integrated into the Turret
-  Automatic Weapon Aiming System
-  Recoil Mechanism
-  Fire Control System
-  Integrated into Tracked Vehicles, Tactical Wheeled Vehicles and Stationary Platforms
-  Ability to Work Integrated with Command Control Systems
-  Precise Position and Barrel Laying Detection with Inertial Navigation System
-  Ammunition Muzzle Velocity Detection through Muzzle Velocity Radar
-  Ability to Use Different Types of Ammunition
-  Resistant to Harsh Environmental and Terrain Conditions



ALP 300-G

Early Warning Radar System



ALP 300-G, is a new generation S-Band radar developed for long range early warning, with its AESA and digital beamforming antenna architecture. ALP 300-G has the ability to detect and track **air breathing targets, ballistic missiles, anti-radiation missiles and stealth/low RCS targets** from very long ranges.

AESA and Digital Beam Foming architecture together with Multi Channel Receivers allows to produce simultanous beams in space **paving the way for multi-function and multi-mission operations.** ALP 300-G uses weather information to optimize its detection and tracking performance. ALP 300-G is a highly mobile standalone system with its radar, command control/communication and power systems on tactical trucks without mounting/demounting operations for deployment and marchorder. ALP 300-G can be connected to radar networks and can exchange 3D air picture among different ALP 300-G systems and the Air Force command centers thru radios, radio links and army backbone thru AWCIES messaging. ALP 300-G can perform data fusion and track handover amongst themselves, **which is a critical feature especially for ballistic missile defense.** A long range Mode 5 IFF interrogator is integrated with a high gain IFF antenna to cooperate with radar's operational modes. ALP 300-G AESA architecture and modular design approach support the concepts of high availability and low cost maintenance. ALP 300-G, has several ECCM features such as frequency / time agility, low side lobe levels, jammer strobe and nulling, side lobe blanking, to name a few.

Operational & Tactical Specifications

- Effectiveness against a broad set of threats at long range
- Detection and Tracking of Targets with Very Small RCS at Long Range
- Detection and Tracking of Ballistic Missiles
- Electronic Scanning in Azimuth and Elevation
- State of the Art Solid-State Power Amplifier Technology
- Digital Beamforming
- Target Classification Capability
- Various Tactical Operation Modes
 - Long Range Mod5/S IFF System (Compatible with NATO STANAG-4193)
- Local and Remote Radar Control
- Performance Evaluation Subsystem
- Integration with the National C2 Systems and NATO Air Command and Control System (ACCS)
- Integration with the Air and Missile Defense Systems
- Compliance with the Tactical Communication Networks
- Advanced Electronic Protection Measures and Cyber Security
- Counter Measures against Anti-Radiation Missiles
- Portability with 10 Ton Class Tactical Wheeled Vehicles (TWV)
- Transportable with C130/A400M
- 24/7 Operation
- 3000 Hours MTBCF
- %99.9 Availability
- 30 Minutes Deployment and March-Order Time
- Advanced Built-in Test (BIT) Capabilities
- 30 Minutes MTTR
- Endurance to Harsh Environmental Conditions (MIL-STD-810G)
- Advanced Algorithms for Windfarm Mitigation



ALP 110-G

Multifunction Aesa Air Surveillance Radar System

ALP 110-G is a multifunction AESA Air Surveillance Radar System that can be used not only as the main search radar for the ground based air defense systems but also as a gap filler radar to cover the areas which cannot be covered by other long range radar systems.

System can perform target detection and tracking functions within medium/long range (>100 NM) and low/ medium/high altitude and can identify targets by using its onboard Secondary Surveillance System (Mod-5/S capable).

Improved system mobility is one of the main advantages of the being integrated on 8x8 tactical wheeled vehicle including power generator and communication equipment. System is compact enough to be transported by an A400M aircraft.

Two operators can prepare the system for transport or operation within 15 minutes.

The system has the ability to detect and warn for ballistic objects such as Rocket Artillery and Mortar (Sense and Warn). System offers a dedicated mode for weapon locating, reporting point of launch enabling precise counter-fire and generating automated alarms by calculating point of impact.

Technical Specifications

- Operating Frequency : S-Band
- Instrumented Range : > 110 NM
- Target Track Capacity : > 1000
- Azimuth Coverage : 360°
- Elevation Coverage : -6° / +70°



Features

- 3D Detection and Tracking Fighters, Helicopters, Hovering Helicopters, Unmanned Air Vehicles (UAVs), Cruise Missiles
- Multiple target tracking
- Classification of targets
- Identification of targets with integrated
- Mode-5 IFF
- Jammer direction finding
- Remote operation with Command Control System



HISAR O 100

Medium Range Air and Missile Defense System

MEDIUM RANGE AIR AND MISSILE DEFENSE SYSTEM

HISAR O 100 Medium Range Air and Missile Defense System, dedicated to protect stationary forces and high value assets, is the Türkiye's first air and missile area defense system in a distributed and flexible architecture.



FEATURES



Effective Air Defense Execution with Distributed Architecture and Flexible Deployment



Multiple Engagement and Successive Firing



360° Threat Destruction via Vertical Launcher



Threat Evaluation and Weapon Assignment



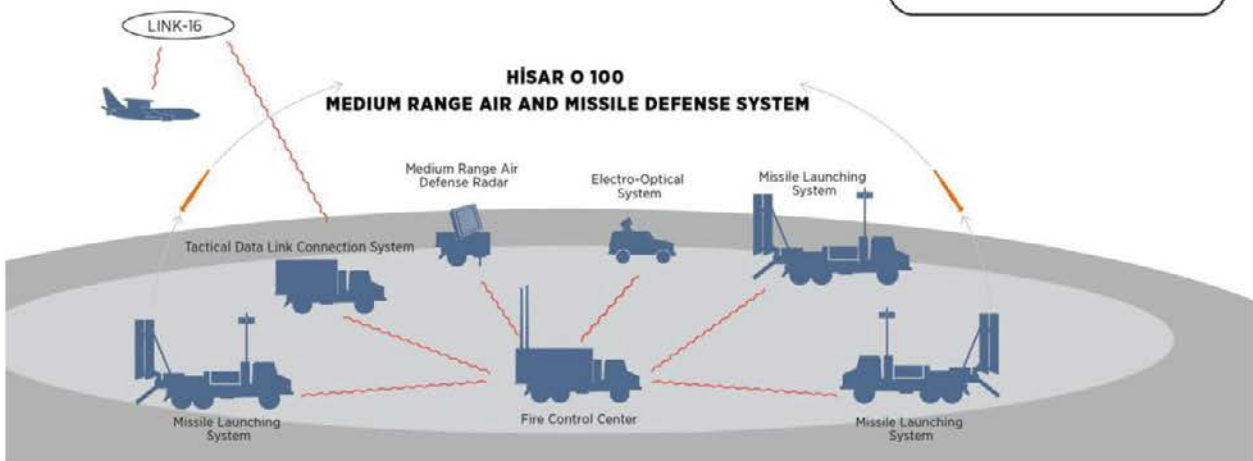
Target Interception with IIR and RF Missiles



Operation In Day, Night and Adverse Weather Conditions

Specifications

- System Interception Range: > 25 Km
- System Interception Altitude: > 15 Km
- Number of Tracks: > 60 Targets
- Ready-to-fire Missile: 18



HISAR O+

Medium Range Air Defense Missile System

Air Defense of Stationary Forces and Critical Assets Target Interception with IIR and RF Missiles Multiple Engagement and Successive Firing Threat Evaluation and Weapon Assignment Operation in day, night and adverse weather conditions mobility in tactical area.

HISAR O+ Medium Range Air Defense Missile System is dedicated to air defense of Stationary Forces and Critical Assets against:

- Fighters
- Helicopters
- UAVs
- Cruise Missiles
- Air to Surface Missiles

HISAR O+ performs target detection, classification, identification, tracking, command & control and fire control functions in a distributed and flexible architecture.

One HISAR O+ Battery consists of battery level FCC, battery level Radar, Electro-Optical System, TDLCs and Missile Launching Systems. HISAR O+ Battery has the capability of target detection, tracking, identification and performing command & control and fire control functions autonomously. HISAR O+ is organized in battalion level and consists of battalion level Fire Control Center (Battalion FCC), battalion level Radar, three HISAR O+ Batteries, Tactical Data Link Connection System and Support Vehicles. Battalion FCC produces Integrated Air Picture using track information provided by battalion level Radar and Air Defense Batteries in the Battalion, performs threat evaluation and assignment for Batteries.

HISAR O+ Medium Range Air Defense Missile System is state of Medium Range Air Defense Missile System is state of future technology.

Specifications

- System Interception Range : 25 km
- Ready-to-Fire Missile : ≥ 18 (Battery Level)
: ≥ 54 (Battalion Level)
- Fighter Detection&Track Range : 40-60 km
- Number of Tracks : > 60 targets

Features

- Effective Air Defense Execution with Distributed Architecture and Flexible Deployment .
- Air Defense mission planning at battery and battalion level.
- Management and distribution of command and control information.
- Integrated air picture generation.
- Target Interception with IIR and RF Missiles.
- 360° Threat Destruction via Vertical Launcher.
- Multiple engagement and successive firing.
- Data Link for midcourse guidance.
- Operation in day, night and adverse weather conditions.
- Global positioning system and navigation.
- Remote control.
- Wired or wireless communication between systems.
- Work in coordination with Turkish Air/Naval/Land Forces command and control units using Link 1/Link 11B/Link 16 tactical data links and JREAP.
- Automatic target tracking and shooting with using EO sensors.
- Identification Friend or Foe (IFF).
- Threat Evaluation and Weapon Assignment.
- Multi Target, Multi Radar Fusion.
- Embedded Simulation.
- Built-in test, Effective ILs and maintenance.



Long Range Air and Missile Defense System

- LONG RANGE AIR DEFENSE of strategic facilities against enemy attacks
- Distributed Architecture
- Close and Remote deployment capability
- Multiple engagement and successive firing
- Ability to operate in coordination with Air/Naval/Land Forces command and control units using tactical data links
- Transportation capability with land, air, naval and railroad
- Connection with Radar Network and HvBS

SIPER Long Range Air and Missile Defense System is effective against:

- Air Breathing Targets
- Cruise Missiles
- Air to Surface Missiles
- UAV's

SIPER System consists of:

- Command and Control Level
- Command and Control Center
- Long Range Surveillance Radar

Battery Level

- Fire Control Center
- Fire Control Radar
- Missile Launching System
- Missile Transport Loading System
- Long Range Missiles
- Communication Systems
- Support Equipment's and Class Type Training Center

Specifications

- System Max. Interception Range : 150 km
- System Interception Altitude : 0.1-30 km
- Coverage : 360°
- Number of Tracks : 100
- Battery Level Engagement Capability : 10
- Battery Level Missile Guidance Capability : 20

Features

- Air Defense mission planning and coordination
- Management and distribution of command and control information
- Integrated air picture generation
- Multiple engagement and successive firing
- Manual/Semi Automatic/Automatic engagement capability
- Identification Friend or Foe (IFF)
- Automatic diagnosis management
- Threat evaluation and weapon assignment
- Multi-Target Multi-Radar fusion
- Data Link (Uplink and Downlink)
- Terminal guidance with RF Seeker
- RF Target Detector
- Highly effective Warhead
- Wired or wireless communication between systems
- Vertical/Oblique launching capability
- Radar Network and HvBS connection capability
- Operation in day, night and adverse weather conditions
- Ability to operate in coordination with Air/Naval/Land Forces command and control units
- Embedded Simulation
- Ability to operate with 6 missiles on the Missile Launching System
- Solid propellant propulsion system (monobody)



TIMSAH T360S/T375S

Thermal Weapon Sight

- NEW GENERATION UNCOOLED THERMAL SIGHT
- 8-12 μm WAVELENGTH
- DIFFERENT OBJECTIVE ALTERNATIVES
- WIRELESS HEAD-UP DISPLAY (OPTIONAL)
- ERGONOMIC
- COMPACT & LIGHT

Applications

- Night Shooting & Marksmanship
- Observation & Surveillance

Main Features

- Automatic Image Optimization
- Image Recording and Playback
- Polarity Options
- Wireless Head-up Display (Optional)
- Ballistic Reticle
- Light Proof Eyecup
- Rugged Design
- Rechargeable Li-Ion Battery

Environmental Conditions

- Operating Temperature : -32°C / +50°C
- Storage Temperature : -40°C / +65°C
- Water Resistant : 1 m, 30 min
- Environmental Spec : MIL-STD-810 G

Standard Accessories

- Eyecup
- Carrying Case
- Transportation Case
- Objective Cover
- Optical Cleaning Kit

Optional Accessories

- Wireless Head-Up Display
- Solar Charger
- IR Pointer
- Laser Zeroing Device

Technical Specifications

- Operation Wavelength : 8-12 μm (LWIR)
- Detector Type : Uncooled
- Detector Resolution : 640 x 480
- Detector NETD : Max. 50 mK
- Video Format : PAL
- Color Reticle : Available
- Image/Video Storage : Available
- Internal Memory : Available (32GB)
- Tilt Sensor : Optional
- Ammo Counter : Optional
- Battery : Li-Ion (re-chargable)
- Operation Time : 8 hours

Field of View	10.3° x 7.7°	8.3° x 6.2°
Magnification	x2.2	x2.8
Electronic Zoom	x2, x4	x2, x4
Weight (w/o battery & accessories)	780 g	1010 g
Dimension (WXLXH)	85x230x82mm	100x260x100mm



ACAR-K

Surveillance Radar Series

Overview

ACAR-K Surveillance Radar Series is designed and developed for detecting, tracking and classifying targets moving on the ground at day and night in all weather conditions.

Technical Features

- Operating Frequency : Ku-Band
- Adjustable Sector Width : 10° - 360°
- Antenna Elevation Tilt : +/- 24°
- Antenna Rotation Speed : 4 rpm / 15 rpm
- Instrumented Range : 15 km / 40 km
- Elevation Coverage (ACAR-K44) : 4°
- (ACAR-K1015) : 10°
- Compliance with MIL-STD-810G and MIL-STD-461F

Applications

- Homeland Security
- Border Surveillance
- Battlefield Surveillance
- Mobile Applications
- Artillery Fire Adjustment

System Units and Accessories

Main Units

- Sensor Unit
- Antenna Unit
- Control Display Unit

Accessories

- Tripod
- Headphones
- North Calibration Unit

Auxiliary Units

- Interconnection Cables
- AC / DC Converter
- Battery Pack
- Carrying Case

General Features

- Advanced Digital Signal Processing (DSP) Techniques
- Ku-band Pulsed Doppler Radar with Pulse Compression
- Track-While-Scan (TWS) in Surveillance Mode
- Multi-target Tracking
- Automatic Track Classification
- Low Output Power for Low Probability of Intercept (LPI)
- B-Scope or PPI Display
- Digital Map Overlay
- Remote Control
- High Accuracy and Resolution
- 360° Continuous or Sector Scanning
- Selectable Range Scales
- User Defined Alarm and Friendly Zone Selection
- Built In Test (BITE)



NOVA A341/A361

Night Vision Weapon Sight

- 4X/6X MAGNIFICATION
- HIGH PERFORMANCE AT LOW LIGHT LEVELS
- GEN2+ / GEN3 HIGH PERFORMANCE IMAGE INTENSIFIER
- ERGONOMIC & RUGGED DESIGN
- COMPACT & LIGHTWEIGHT



Applications

- Night Shooting & Marksmanship
- Observation & Surveillance
- Rapid & Accurate Firing

Environmental Conditions

- Operating Temperature : -51°C / +51°C
- Storage Temperature : -51°C / +65°C
- Water Resistant : 1 m for 30 min.
- Environmental Spec : MIL-STD-810G

Main Features

- A341: 4X Magnification
- A361: 6X Magnification
- Adjustable Diopter
- Single AA Battery Operated
- Reticle and Reticle Adjustment Options
- Reticle Brightness Adjustment
- Mounting Adapters for Various Weapons
- STANAG 4694 (MIL-STD-1913) Compatible Weapon Adapter

Standard Accessories

- Eyecup
- Carrying Case
- Transportation Case
- Objective & Eyepiece Covers
- Optical Cleaning Kit

Optional Accessories

- Laser Pointer
- IR illuminator
- Mounting Adapter for Various Weapons



Technical Specifications	A341	A361
Magnification	4x	6x
Field of View	10°	6.3°
Eye Relief	25 mm	25 mm
Diopter Adjustment	6 /+2	-6 /+2
Reticle	Duplex/ Mil-Dot/Custom Design	Duplex/ Mil-Dot/Custom Design
Reticle Adjustment	1.5 cm @ 100 m	1cm @ 100 m
Battery	1xAA 1.5 VDC	1xAA 1.5 VDC
Weight (w/o battery & accessories)	1200 grams	1380 grams

AYA TS100

Multifunctional Thermal Monocular

Usage Areas

- Day/Night Surveillance
- Optimized for Multiple Usage Modes
- Handheld, Weapon Mounted and Helmet-Mounted Usability
- Situational Awareness
- Search and Rescue

Key Features

- Automatic Image Calibration
- High Resolution and Color OLED
- Different Color Palette Options
- Automatic Display Mode
- Diopter Adjustment
- Athermalized Fixed Focus
- User Friendly Easy Menu
- Wi-Fi
- Internal Infrared Laser Pointer
- Compatible MIL-STD-810G
- Image and Video Recording
- Media Gallery

Standard Accessories

- Eye Cup
- Lens Cover
- Battery (18500 Li-on)
- Carrying Case
- Optical Cleaning Kit
- Battery Charger

Optional Accessories

- Helmet Mount Adapter

Technical Specifications

- Detector : 320x240 12 μ m Uncooled Micro-Bolometer
- Field of View : 12.2° x 9.2° (\pm 10%)
- Electronic Magnification : Up to 4X (Continuous)
- Screen : 1024 x 768 Resolution and Color OLED
- Reticle : Laser Target Pointer
- Diopter : -6 / +2
- IR Pointer : Internal 830 \pm 20 nm
- Battery : 1 X Li-on Re-chargeable (Li-on 18500)
- Continuous Operation Time : \leq 4 hours
- Dimensions : 160mm x 60mm x 60mm
- Weight : \leq 290 g

Environmental Conditions

- Operation Temperature : -20°C / +50°C
- Storage Temperature : -40°C / +65°C
- Immersion : 1m / 30 min.



HISAR

Missile Launching System

HISAR Missile Launching System is a multi purpose missile launcher which uses short and medium range air defense missiles.

AIR DEFENSE OF STATIONARY/MOVING FORCES AND CRITICAL ASSETS

LAUNCHES SHORT RANGE MISSILES UNDER CONTROL OF KORKUT-FIRE CONTROL SYSTEM

LAUNCHES MEDIUM RANGE MISSILES UNDER CONTROL OF HISAR O+ AIR DEFENCE SYSTEM

HIGH MOBILITY

HISAR Missile Launching System is a multi purpose missile launcher which deploys and launches short and medium range HISAR Air Defense Missiles.

HISAR A+ Missile Launching System, configured as a short range air defense missile launcher, operates under control of KORKUT-Fire Control System which provides coordinated operation of 35 mm towed guns and Missile Launching System.

HISAR O+ Missile Launching System, configured as a medium range air defense missile launcher, is controlled by HISAR O+ Fire Control Center which supervises three launchers within an air defense battalion.

HISAR Missile Launching System is a state of the art technology and has open HW&SW architecture for utilizing future technology.

Specifications

System Interception Range	: 15 km (HISAR A+), 25 km (HISAR O+)
Ready-to-fire Missile	: 6
Max Road Speed	: 65km/h
Gradient	: 60%
Side Slope	: 30%

HISAR Missile Launching System are dedicated to air defense of Stationary/Moving Forces and critical assets against:

- Fighters
- Helicopters
- UAVs
- Cruise Missiles
- Air to Surface Missiles

Features

- Multi purpose missile launcher
- Multiple engagement and successive firing
- Data Link for midcourse guidance
- Operation in day, night and adverse weather conditions
- Global positioning system and navigation
- Remote control
- Mobility in tactic area
- Fast deployment and short startup-time
- Automatic leveling system
- Effective ILS and maintenance



Hand-Held Electro-Optic Sensor

- HIGH RESOLUTION MID-WAVE SENSOR
- CONTINUOUS ZOOM (IR AND DAY)
- INTEGRATED LRF, DMC AND GPS
- DATA AND IMAGE STORAGE
- MIL-STD-810G QUALIFIED
- COMBAT PROVEN DESIGN
- COMPACT AND RUGGED DESIGN

Applications

- Border Surveillance
- Reconnaissance
- Fire Support
- Situational Awareness
- Special Forces
- Law Enforcement

Main Features

- Polarity: Black-hot, White-hot, color palettes
- Motorized focus, FOV and zoom adjustment
- Automatic image optimization and image enhancement
- Real time calculation of target coordinates
- Target coordinate transmission via radio
- Data and image storage
- Easy battery change
- Shuttered eyecups
- High resolution OLED display

Optional Accessories

- Pirate – Head Mounted Display
- Motorized Pan-Tilt
- Remote Control Unit
- 1.5x Magnifier Objective
- Goniometer
- Sun Shield



Standard Accessories

- Tripod with Manual Adjustment Unit
- External Video Cable
- Rechargeable Batteries
- Battery Charger
- External AC/DC Adapter
- Eyecup
- Lens Cover
- Optical Cleaning Kit
- Carrying Case
- Transportation Case

Technical Specifications

Thermal Imager

- Sensor : 640x512 MWIR (3-5 μ m)
- Cool-down Time : <7 min.
- Field of View
 - WFOV : 16.8° x 13.5°
 - MFOV : 6° x 4.8°
 - NFOV : 2° x 1.6°
 - Continuous from NFOV to WFOV
- E-Zoom : 2x

Laser Range Finder

- Laser Type : Class 1, Eye Safe, 1.54 μ m
- Range : <20 km
- Accuracy : 5m rms

Color TV

- Sensor : 1920 x 1080 Full HD CMOS
- Field of View
 - WFOV : 16.8° x 12.6°
 - MFOV : 6° x 4.5°
 - NFOV : 2° x 1.5°
 - Continuous from NFOV to WFOV
- E-Zoom : 12x

Digital Magnetic Compass

- Accuracy : 1° rms

GPS

- Accuracy : 15 rms

Physical

- Weight : \leq 4.2 kg (with battery)
- Battery Life : \geq 4 hours
- Dimensions : 275 mm x 270 mm x 125 mm

Environmental Conditions

- Operating Temperature : -32°C to +55°C
- Storage Temperature : -40°C to +65°C
- Environmental Spec : MIL-STD-810G

MEERKAT

Manpack Integrated Drone Detection & Jamming System

IHASAVAR Anti Drone Jammer Subsystem

- Providing protection against Drone/Mini-Micro UAV threats with manual active jamming with threat detection of MEERKAT Subsystem
- Jamming for Drone/Mini-Micro UAVs; remote control frequencies, GNSS frequencies (GPS L1, GLONASS L1, GALILEO E1 and BEIDOU B1) and data link/telemetry frequencies
- Software defined jammer
- Programming of more than 100 different jamming profiles
- Fully Programmable State-of-Art Digital Frequency Synthesizers
- Control and monitoring of the System by Remote Control Unit
- Operation Time: 1.5 hour from the Batteries
- Easy-to-use with user friendly interface
- Compact system architecture
- Built-in VSWR protection
- Built-in test feature
- MIL-STD-810 compliant



MEERKAT - Detection Subsystem

- Drone/Mini-Micro UAV and Remote Controller detection and identification supported by Threat Library
- Control opportunity from Android Based Devices (Mobile Phone, tablet)
- Easy to use with user friendly interface
- Real-time spectrum monitoring of all relevant drone frequency bands
- 360° detection with omni-directional antenna
- Usability in combination with the IHASAVAR system
- MIL-STD-810 compliant
- Operation Time: 1.5 hour



Drone - Mini/Micro UAV & Rciied Jammer System



KANGAL™ Drone - Mini/Micro UAV & Rciied Jammer System is designed to protect Convoys, VIP vehicles in motion against Radio Controlled Improvised Explosive Devices (RCIED) and protect military bases, facilities, high value assets, ceremony/meeting/demonstration areas and checkpoints against Drone - Mini/Micro UAVs.

KANGAL™ covers the whole Radio Frequency (RF) band and applies active jamming on RCIED triggering frequencies of Radios, Remote Control Devices, Mobile Phones (2G, 3G, 4G/LTE,Wifi) and frequency bands of Remote Control, GNSS (GPS/GLONASS/Galileo), Data Link and Image/Video Forwarding Modules of Drone - Mini/Micro UAVs simultaneously.

KANGAL™ uses omni-directional antennas and specially designed antenna patterns to create 360° protection to defeat ground threats such as roas-side RCIEDs and to form a semi-spherical protection umbrella to defeat even fleet attacks (multiple DRONE - Mini/Micro UAVs approaching from different directions).

KANGAL™ is operate for unlimited durations powered via vehicle alternator or an additional Alternator or for a limited time via system batteries.

KANGAL™ is a vehicle independent system being able to be installed on any type of vehicle (e.g. armored/unarmored SUVs, pickups and military trucks).

KANGAL™ is a Software Defined Jammer System and its programmability features provide the user with utmost customization flexibility to specific operational and tactical requirements. User defined "jamming profile" includes setting of numerous jammed frequency bands and output power levels for simultaneous jamming of multiple threats. New jamming waveforms can quickly and easily be added to the system to counter new threats and region specific threats. Dynamic Communication Channels can be programmed to provide friendly force communication during jamming.

Technical Specifications

- **Application Type:** Convoy Protection, VIP Vehicle Protection against RCEIDs, Static Infrastructure, Area/Zone Porotection against Drone - Mini/Micro UAVs.

- **Frequency Coverage:** Whole Radio Frequency (RF) Band (Configures and prioritized according to user requirements).

- Software Defined (Programmable) Jammer (Configurable according to Operatoinal and Tactical Requirements).

- **Jamming Type:** DDS-Based FPGA-Controlled Swept Jamming.

- **Antenna Type:** Omni-Directional Antennas

- **Antenna Pattern:** Semi-spherical

- **RF Output Power:** <450 Watt

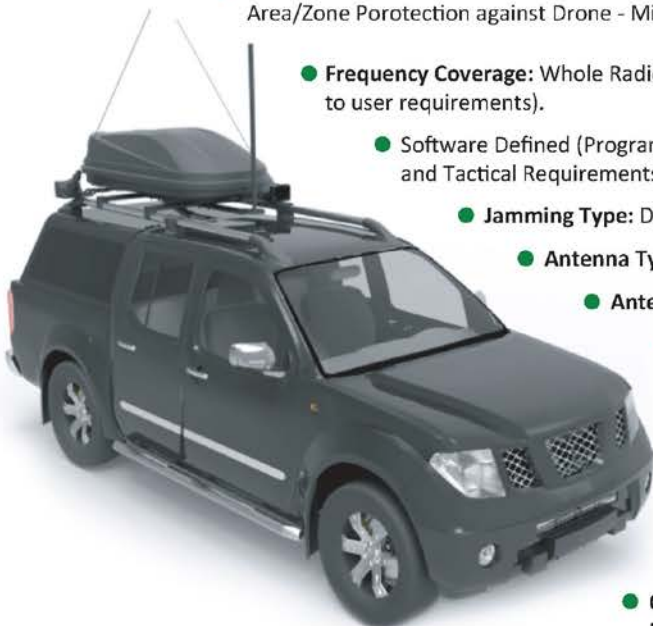
- **Power Source & Operation Time:**

- Continuous Operation via Vehicle Alternator
- At least 1 hour via Batteries

- **Weight:** <25kg (RF Jammer Unit)

- **Electric Field (SAR):** Compatible with ICNIRP standards (Human Safe).

- **Other Environmental Conditions:** Compatible with MIL-STD-810G/F Conditions (Humidity, Rain, Sand, Shock, Vibration).



Integrated Drone detection & Jamming System

Meerkat™ Detection System

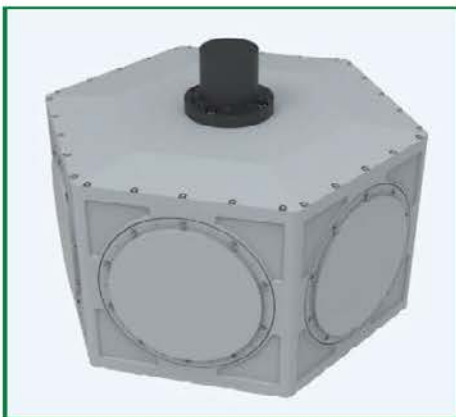
- **Frequency Range:** UHF and SHF (partial) ⁽¹⁾
- **Antenna Type:** Directional and Omni-Directional
- Drone/Mini-Micro UAV detection and identification ⁽²⁾
- Fixed site configuration for the protection of critical facilities, borders, private and government facilities, airports, etc.
- Ability to work at night and all adverse weather conditions with its unique RF detection technology.
- Easy to use with user friendly interface.
- Spectrum monitoring of all relevant drone frequency bands.
- Ability to simultaneously detect multiple threats (swarms) from different sectors controlled at different frequencies.
- Direction/sector finding (DF) of drones by using the directional antenna set.
- 7/24 operation from the mains supply.
- Ability to be integrated with IHASAVAR™ Anti-Drone RF Jammer System in a co-operative manner.
- MIL-STD-810 compliant.

(1) SHF partial; you can contact us for more information.

(2) Identification feature is supported only for threats that are listed in our Threat Library.

IHASAVAR™ Anti Drone Jammer Subsystem

- Providing protection against Drone/Mini-Micro UAV threats with automatic or manual active jamming with threat detection of MEERKAT Subsystem.
- Jamming for Drone/Mini-Micro UAVs; remote control frequencies, GNSS frequencies (GPS L1, GLONASS L1, GALILEO E1 and BEIDOU B1) and data link/telemetry frequencies.
- Software defined jammer.
- Programming of more than 100 different jamming profiles.
- Fully Programmable State-of-Art Digital Frequency Synthesizers.
- Control and monitoring of the System with a Laptop.
- Protection of military bases, facilities with Omni-Directional Antennas.
- 7/24 operation from the mains supply.
- Easy-to-use with user friendly interface.
- Compact system architecture.
- Built-in VSWR protection.
- Built-in test feature.
- High efficiency multi-band power amplifiers.
- MIL-STD-810 compliant.



Anti-Drone System

Anti-Drone System, aims to neutralize mini and micro UAV threats in urban and rural environments. It is used for protection of critical facilities, prevention of illegal border infiltration and safety of highly populated events.

General Specs

- Detecting and tracking multiple UAVs with high accuracy using portable radar
- Low false alarm rate
- Recognizing the threats from a distance using TV/Thermal cameras
- Automatic video tracking
- Directional jamming capability for specific threats
- Omni directional jamming capability for swarm attacks
- Ability to switch to preloaded jamming frequency groups
- Software programmable jamming frequencies
- Requires minimum operator intervention
- Built-in-Test (BIT) capabilities
- Operating in all-weather conditions for 7/24
- Customizable with its open and modular architecture
- Compatible with military standards
- Easy to include other means of sensors (acoustic drone detection system, direction finding (DF) system) and effectors (Unmanned air vehicle (UAV) hard kill system, Laser defense system)
- Compatible to work with TAFICS infrastructure

ACAR Radar System

- Ku-band Pulsed Doppler Radar with Pulse Compression
- Track-While-Scan (TWS) mode
- Multi-target tracking, Automatic target tracking
- 360° Continuous or Sector Scanning,
- 30 rpm rotation speed
- Automatic Target Classification
- 40° instantaneous elevation coverage Adjustable Sector Width



GERGEDAN RF Countermeasure System

- Programmable RF Jammer System
- Active jamming of RFEYP trigger frequencies of radios, remote controls, mobile phones (2G, 3G, 4.5G/LTE, WI-FI) and GNSS, remote control, data/image/video transmission frequencies of Drones/Mini-Micro-UAVs in the entire radio frequency band.
- Protection against swarm threats with co-directional antenna set
- Type of antennas: with directional/co-directional antenna, antennas hidden inside the roof rack.



GÜNGÖR/DÖRTGÖZ Electro-Optic Systems

- The third-generation thermal imaging system DÖRTGÖZ developed for long distance surveillance and reconnaissance, can perform many tasks such as border surveillance, tactical reconnaissance, coast guard, facility security, long distance surveillance under all weather conditions day and night.
- GÜNGÖR HD is a family of high-definition daytime cameras; used for long-range surveillance and reconnaissance, fixed and mobile security applications, situational awareness, air defense applications and security units.



Command and Control System

- Centralized Command & Control capabilities with integrated GIS, alarm zones, filtering etc.
- Air picture generation
- Decision support algorithms
- Sensor fusion and auto-tracking
- Threat evaluation and effector allocation algorithms
- Centralized command & control of all sensors and effectors
- Integration of new sensors and systems with open architecture feature



DRONES

FPV-10



FPV-10

extended- range loitering munitions

FPV 10 represents the next generation of extended-range loitering munitions that provides military security and special forces with an effective small footprint tool to make discreet targeted attacks with accuracy and effectiveness.

Easy to carry, this system meets multiple fuze options to meet any mission requirements.



Fuze options



Impact

detonation on impact



Timer

self destruct timer



Operator

initiate by operator

FPV 10 delivery system is equipped with several detonation options – impact, timer, operator command.

The device is equipped with safety mechanism.

FPV-10



extended-range loitering munitions



Range
up to 15 km



Altitude
up to 6000 m



Endurance
up to 10 min



Speed
up to 140 km



Weight
968 grams



Load capacity
up to 5 kg



FPV-10



All PG ammunition types

It is capable of carrying and triggering the explosion of any type of PG ammunition (PG-7V/VL/VM OG TBG)



Tailored for the RPG-7

BL 10 FPV DRone was specially designed for the RPG-7 combat projectile.



Controller & Components

The operator uses virtual reality FPV Goggles, which allows for compete immersion.



Propeller repair

10x4.5x3 propellers
Glass fiber reinforced nylon



Performance in Combat

BL 10 FPV Drone is field-tested across multiple countries and has demonstrated exceptional performance in real combat scenarios.



Superior thermal vision

Equipped with a state-of-the-art thermal camera, the BL 10 FPV Drone excels in both day and night operations, offering unparalleled versatility and reliability.



Camera

The main distinctive features and competitive advantages of our complex is the use of thermal imager.

Targeting using camera

- * Sensor: starlight sensor 1/1.8 inch
- * Horizontal resolution: 1200TVL
- * Horizontal field of view: 165° Lens 2.1 mm lens
- * Video format: NTSC and PAL
- * Image ratio: 4:3 and 16:9 Wide dynamics: Super
- * WDR Low illumination: 0.0001 LUX
- * Video output: CVBS

Video Transmission

- * Steady output power
- * 4 power levels up to 1600 mW
- * 40 channels (including Raceband)
- * Rapid frequency lock, no interference with other pilots.
- * Established self-assessment function of exit forces.
- * IRC Tramp video transmitter telemetry.



Technical Specifications

Weight	825g
Frame	XL 10 V6 with 452 mm wheelbase
Flight Control	BUTZ ATF 435 Flight Controller
Esc	BUTZ E65S 4-in-1 2-65 55A ESC
Video transmission	BUTZ Whoop 1.2B 1.6W VTX BUTZ Whoop 1.6W VTX BUTZ Whoop 2.5W VTX
Receiver	TBS CROSSFIRE NANO (SE) 868/915
Load capacity	up to 5kg
Flight time	up to 10 min
Range	up to 15 km
Speed	up to 140 km/h
Altitude	up to 6000 m
FC	F405 + ESC: 60A
Antenas	Long Range Kit
Camera	RaceCam R1 Mini
Engine	900KV / Xing-E 3314
Propeller	HQprop 10" 4.5" 3
Receiver	ELRS 915
Battery	8000 mAh
Remote Controller	RADIOMASTER BOXER
VTX	1.3 G 950 MTW/5.8G 2.5W
Maximum wind resistance level	Level 7
Operating temperature	-10° + 50° C

FPV-10

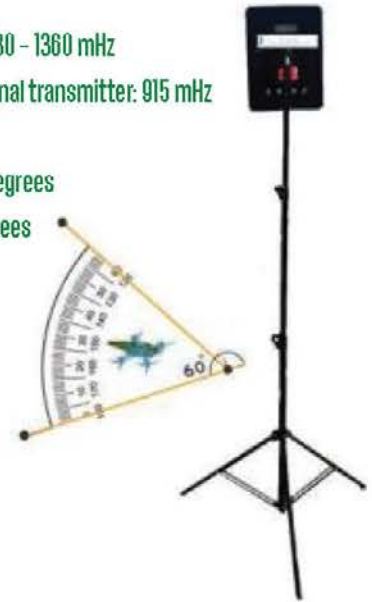


Technical Specifications

Antenna

Ground station is designed to remotely control kamikaze drone outside the operator's line of view at a distance of up to 20 km (the parameter depends on the complexity of the terrain and the presence/absence of radio signal interference).

- Video receiver frequency: 1080 - 1360 mHz
- Frequency of the control signal transmitter: 915 mHz
- Polarisation: linear
- Horizontal signal angle: 60 degrees
- Vertical signal angle: 20 degrees



FPV Goggles

The operator uses virtual reality FPV Goggles, which allows for complete immersion.



Remote Control

Control is carried out by a standard remote control, which makes it possible to easily train pilots. Data transmission is carried out over a secure channel.



Charger

The included charger allows you to charge the included batteries multiple times.

Model	Cobra X
Screen	LCD
Resolution	1280x720
FOV (Diagonal)	50°
Aspect Ratio	4.3/16.9
Receiver	5.8 Ghz 48 CH SteadyView Receiver
Language	10 Language
Power Supply	1 Cell 18650/DC 6.5-25.2V/USB 5V
Power Consumption	12V 0.63A 5V 1.5A
DVR	H264, 30fps MOV 6Mbps, SD up to 128Gb
Head Tracker	3-axis Accelerometer, 3 axis gyroscope
Dimensions	122x165x100 mm
Weight	332g



* The product has its own power source, which guarantees its efficiency and power functioning when hitting the target from any perspective, including when the drone structure is destroyed by a target or obstacle.

* The product is designed to work with standard electric detonator.

* The product has a power switch, the lever of which is inscribed in the outline of the case, which prevents it from being turned on or off accidentally.

* Detonation is carried out using standard electronic detonator.



Electronic explosion

Initialization Board

Our unique development is an electronic explosion initialization board that allows the detonation of ammunition.

S-30



Full size	Wingspan	3.368m
	Length	1.85m
Weight parameters	Maximum take-off weight	34kg
	Maximum load	10kg
Flight mode	Manual flight, automatic route flight	
Fuel tank volume	Gasoline engine (8L)	
Maximum flight time	6h	
Cruising speed	22m/s	
Stall speed	14m/s	
Maximum flight altitude	5000m	
Maximum wind resistance	Level 5	
Data link	50km	

S-V50A



Full size	Wingspan	6.97m
	Length	3.5m
Weight parameters	Maximum take-off weight	180kg
	Maximum load	40kg
Flight mode	Manual flight, automatic route flight	
Fuel tank volume	Gasoline engine (60L)	
Maximum flight time	6h	
Cruising speed	35m/s	
Stall speed	26m/s	
Maximum flight altitude	4000m	
Maximum wind resistance	Level 6	
Data link	50km	

S-150



Full size	Wingspan	6.97m
	Length	3.5m
Weight parameters	Maximum take-off weight	180kg
	Maximum load	40kg
Flight mode	Manual flight, automatic route flight	
Fuel tank volume	Gasoline engine (60L)	
Maximum flight time	6h	
Cruising speed	35m/s	
Stall speed	26m/s	
Maximum flight altitude	4000m	
Maximum wind resistance	Level 6	
Data link	50km	

S-150

S-10



Full size	Wingspan	Front wings 1.48m, rear wings 1.3m
	Length	1.45m
Weight parameters	Maximum take-off weight	11kg
	Maximum load	3kg
Flight mode	Manual flight, autonomous route flight	
Type	electric	
Maximum flight time	1.2h	
Cruising speed	32m/s	
Stall speed	22m/s	
Maximum flight altitude	3500m	
Maximum wind resistance	Level 6	
Seeker	1. Weight: 700g 2. Visible camera: 1920x1080@60fps 3. Thermal camera: 640x512@60fps 4. Power: Battery	

S-20



Full size	Wingspan	Front wings 1.75m, rear wings 1.4m
	Length	1.45m
Weight parameters	Maximum take-off weight	21.5kg
	Maximum load	7.5kg
Flight mode	Manual flight, autonomous route flight	
Type	electric	
Maximum flight time	1h	
Cruising speed	36m/s	
Stall speed	25m/s	
Maximum flight altitude	3000m	
Maximum wind resistance	Level 6	
Seeker	1. Weight: 700g 2. Visible camera:1920x1080@60fps 3. Thermal camera: 640x512@60fps 4.Power: Battery	



*Sustaining Global
Defence Productions*

Army training



Localization

To safeguard our nation and its interests by employing cutting-edge technology, strategic planning, and the dedication of our personnel. We envision a future where our citizens and allies can thrive in a secure and stable environment, free from threats to their safety and sovereignty. Our agency will be at the forefront of innovation,



Developing and implementing strategies to counter terrorist threats, including domestic and international terrorism.



Developing comprehensive security strategies and plans to address potential threats and vulnerabilities. This includes risk assessments, scenario planning, and resource allocation.

Our Services

Providing professional security services worldwide.

Security devices Equipments

various types of security equipment and devices designed to protect people, property, and assets from threats, theft, vandalism, and unauthorized access.

Private military contractors

Alfa provides expert bodyguard protection. Our agents are well-trained and attentive.

Expertise in tactical training

This type of training is designed to equip security personnel with the knowledge, skills, and mindset required to effectively respond to a wide range of security threats and situations.

Travelling Bodyguards

High-profile individuals must take extra care and precaution during their travels.

Cyber Security

The protection of internet-connected systems such as hardware, software and data from cyberthreats.



Employee Screening

Help your company work smoother with safety regulations & stay safe.

Security Services solutions & consultancy

Alfa Defense promises superior security solutions in what the industry requires.



Selling Tactical equipments for law enforcement

Tactical Supply Solutions is proud to be a partner in the vital work of our nation's law enforcement agencies. We work tirelessly to provide the tools and equipment needed for those who put their lives on the line daily to protect our communities.

Our dedication to quality, reliability, and innovation is unwavering, ensuring that our clients are equipped to face any challenge they encounter in the line of duty.

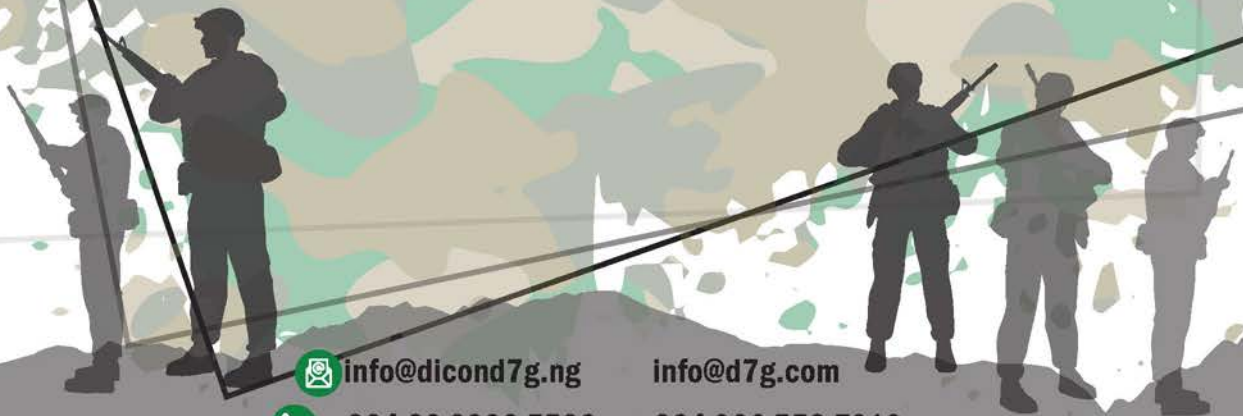



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