

INFANTRY WEAPONS



M21 5.56x45mm

Submachine Gun M21



Submachine Guns
Lightweight and compact.

Assault Rifle M21 S



Assault Rifles
Feature precision of a sniper rifle.
The knife bayonet is a standard accessory.
Quick and simple assembly of underbarrel
grenade launcher (see Optional
characteristics)

Assault Rifle M21 A



Optional

On customer's demand, underbarrel
grenade launcher (BGP 40mm) can be
fitted. Rubber recoil pad, fitted on stock,
is an underbarrel launcher accessory and
it absorbs the recoil impact of grenade
launcher firing.

Accessories

4 spare 30 rounds magazines
cleaning rod
cleaning kit
oil can
sling
blank-firing adapter

Description of each presented weapon shows
additional accessories options – if any.

Technical Characteristics										
Model	C	MC	W	WM	TL	BL	TF	O	LS	RF
Submachine Gun M21	5.56 x 45	30	3.91	0.15 / 0.35	825/575	325	Semi&Auto	Gas	Rotating bolt	600 ± 50
Submachine Gun M21BS	5.56 x 45	30	4.00	0.15 / 0.35	815/570	325	Semi&Auto	Gas	Rotating bolt	600 ± 50
Assault Rifle M21 S	5.56 x 45	30	4.07	0.15 / 0.35	915/666	375	Semi&Auto	Gas	Rotating bolt	600 ± 50
Assault Rifle M21 SBS	5.56 x 45	30	4.2	0.15 / 0.35	915/666	375	Semi&Auto	Gas	Rotating bolt	600 ± 50
Assault Rifle M21 A	5.56 x 45	30	4.15	0.15 / 0.35	1000/750	460	Semi&Auto	Gas	Rotating bolt	600 ± 50
Assault Rifle M21 ABS	5.56 x 45	30	4.30	0.15 / 0.35	1000/750	460	Semi&Auto	Gas	Rotating bolt	600 ± 50

C- Calibre (mm), MC- Magazine capacity, W- Weight of weapon with metal magazine (kg), WM- Weight of polymer/metal magazine (kg), TL- Total length of Weapon/Weapon with folded stock (mm), BL- Barrel length (mm), TF- Type of fire, O- Operation, LS- Locking system, RF- Rate of fire (rds/min)

Submachine Gun M21 BS



Assault Rifle M21 S BS



Assault Rifle M21 A BS



Submodels BS

The rail for scopes is placed on the top of receiver cover.
The rail for mounting of the hand grip is placed on polymer handguard. The rails can accept devices and accessories that correspond to NATO Picatinny rail standard.

Optional

Submodels BS:

On customer's demand, the hand grip for easier handling of the weapon can be included in the weapon set of all BS models.



Hand grip on models BS (optional)



Polymer magazine (optional)



Underbarrel grenade launcher (optional)



Rail mount for optical devices (not included in submodels BS)

7.62x39mm

Assault Rifle M70 B1
Assault Rifle M70 AB2
Assault Rifle M70 B3

Assault Rifle M70 AB3
Submachine Gun M92
Light Machine Gun M72B1/AB1

Assault Rifle M70 B3



Assault Rifle M70 AB3



Optional

All weapons in this group can have optical sight mount and the set can include mount, optical sights or night sights.

Accessories

4 spare 30 rounds magazines
cleaning rod
cleaning kit
oil can
sling
blank-firing adapter

Description of each presented weapon shows additional accessories options – if any.

Technical Characteristics

Model	C	MC	W	WM	TL	BL	TF	O	LS	RF
Assault Rifle M70B1	7.62 x 39	30	4.17	0.36	920	415	Semi&Auto	Gas	Rotating bolt	620 ± 60
Assault Rifle M70B3	7.62 x 39	30	4.10	0.36	920	415	Semi&Auto	Gas	Rotating bolt	620 ± 60
Assault Rifle M70AB2	7.62 x 39	30	3.97	0.36	915 / 670	415	Semi&Auto	Gas	Rotating bolt	620 ± 60
Assault Rifle M70AB3	7.62 x 39	30	3.90	0.36	915 / 670	415	Semi&Auto	Gas	Rotating bolt	620 ± 60

C- Calibre (mm), MC- Magazine capacity, W- Weight of weapon (kg), WM- Weight of magazine (kg), TL- Total length of Weapon/length with folded stock (mm), BL- Barrel length (mm), TF- Type of fire, O- Operation LS- Locking system, RF- Rate of fire (rds/min)

Assault Rifle M70 B1



Assault Rifle M70 AB2



	Stock	Grenade sights	Knife	U.G.L.
M70 B1	wooden	integrated	attachable	BGP 40mm M70
M70 AB2	folding, metal	integrated	attachable	BGP 40mm M70
M70 B3	wooden	/	/	BGP 40mm
M70 AB3	folding, metal	/	/	BGP 40mm

Explanation:

integrated – Assault rifles have integrated rifle grenade launcher sights, and the grenade launching adapter is a standard accessory.

BGP 40mm – underbarrel grenade launcher with a Russian type mount for attachment to the weapon. Delivered at customer's request.

attachable – Knife bayonet can be attached to the weapon and it is a standard accessory.

BGP 40mm M70 – Yugo type underbarrel grenade launcher – delivered at customer's request. (The weapon set in this configuration does not include knife bayonet, rifle grenade launcher sights and adapter).



UGL- mounted on weapon

Submachine Gun M92



Submachine Gun:
Light-weight and compact.

Light Machine Gun M72



Light Machine Gun:

Light Machine Gun M72 B1 has integrated folding bipod.

Optional

Light Machine Gun:

Light Machine Gun M72 AB1 has a detachable bipod (making possible to shoot the weapon through gun holes on armoured vehicles).



Technical Characteristics

Model	C	MC	W	WM	TL	BL	TF	O	LS	RF
Submachine Gun M92	7.62 x 39	30	3.57	0.36	795 / 550	254	Semi&Auto	Gas	Rotating bolt	620± 60
Light Mach. Gun M72 B1/AB1	7.62 x 39	30	5.37	0.36	1025	542	Semi&Auto	Gas	Rotating bolt	620± 60
Assault Rifle M77B1	7.62 x 51N	20	4.35	0.25	1035	500	Semi&Auto	Gas	Rotating bolt	600± 50
Light Mach. Gun M77	7.62 x 51N	20	5.45	0.25	1030	535	Semi&Auto	Gas	Rotating bolt	600± 50

C- Calibre (mm), **MC**- Magazine capacity, **W**- Weight of weapon (kg), **WM**- Weight of magazine (kg), **TL**-Total length Weapon/length with folded stock (mm), **BL**- Barrel length (mm), **TF**- Type of fire, **O**- Operation, **LS**- Locking system, **RF**- Rate of fire (rds/min)

7.62x51N

Assault Rifle M77B1

Light Machine Gun M77

Characteristics:

- chrome plated barrel interior
- universal magazine (for cal. 7.62x51N)
- gas flow regulator

On weapons in this group a knife bayonet can be attached and it is a standard accessory in the weapon set.

Light Machine Gun M77 has integrated folding bipod and handle for better tactical performance.

Assault Rifle M77B1



Light Machine Gun M77



Optional

Assault rifle can be delivered with rifle grenade launcher sights (integrated or as a part of the set) and grenade launcher adapter in the weapon set.

Light Machine Gun can be delivered with a detachable bipod and a folding stock.



Sniper Rifles

Sniper Rifle M91



The design of the M91 sniper rifle is based on the Kalashnikov system. The ergonomics of the stock provide safe and comfortable position of shooter's head during aiming with M91. Scope and cheek pad, included in standard set of the weapon, additionally contribute to extraordinary precision of the rifle and comfortable shooting.

Sniper Rifle M07



Based on the famous M98 Mauser action, the M07 sniper rifle is equipped with variable geometry wooden stock, adjustable comb height and length of pull that enables marksman to adjust the rifle according to his physical ergonomics. The receiver is of polygonal shape, with integrated Picatinny rail (the receiver and the rail are made from one block of steel).

Optional

Scope and adjustable folding bipod are not included in the standard weapon set, but can be delivered at customer's request.



Technical Characteristics

Model	C	MC	W	WM	TL	BL	TF	O	LS	MER
Sniper Rifle M91	7.62 x 54R	10	5.21	0.22	1195	620	Semi	Gas	Rotating bolt	1000
Sniper Rifle M07	7.62 x 51N	5	5.40	0.11	1191	650	Single	Mauser	Rotating bolt	1000

C- Calibre (mm), MC- Magazine capacity, W- Weight of weapon (M91 with scope)(kg), WM- Weight of magazine (kg), TL- Total length (mm), BL- Barrel length (mm), TF- Type of fire, O- Operation, LS- Locking system, MER- Maximum effective range (m)

Long Range Rifle M93 „Black Arrow“ 12.7x108 mm
 Long Range Rifle M93 „Black Arrow“ cal. .50 Browning



Main Characteristics

- excellent balance
- stock with two spring recoil absorbers
- muzzle brake (decreasing recoil by 62%)
- stock and front handguard made of fiberglass reinforced polymer
- adjustable folding bipod
- Mauser locking system
- chrome plated barrel interior
- barrels are produced using technology for heavy machine gun barrels production, providing ballistic lifespan of more than 5000 rounds
- external design of the barrel provides faster cooling

A set of spare parts, tools and accessories is delivered with each weapon set.



Technical Characteristics

Model	C	MC	W	WM	TL	BL	TF	O	LS	MER
Long Range Rifle M93	12.7 x 108	5	15.0	0.76	1670	1007	Single	Mauser	Rotating bolt	1600
Long Range Rifle M93	.50 Browning	5	14.6	0.76	1500	836	Single	Mauser	Rotating bolt	1600

C- Calibre (mm), MC- Magazine capacity, W- Weight of weapon (kg), WM- Weight of magazine (kg), TL- Total length (mm), BL- Barrel length (mm), TF- Type of fire, O- Operation, LS- Locking system, MER- Maximum effective range (m)

Machine Guns

Machine Gun M84

| bipod |



- can be delivered with or without tripod
- mount and scope (ON M80)
- folding bipod utilising shooting on various terrains
- stable tripod mount and mild recoil provide very accurate fire
- the mount is equipped with an attachment that allows shooting on aerial targets

Spares and Accessories, two types of ammunition boxes (250/100 rds) and belt loading machine (on manufacturer's recommendation or on customer's demand) are delivered with machine guns M84 and M86.

| tripod |



ammunition boxes
(250/100 rds)



Machine Gun M86



Intended for mounting on tanks and combat vehicles as the turret machine gun.

- simple assembly on different combat vehicles
- electro-triggering mechanism with the possibility of mechanical triggering
- not fitted with sights, aiming is performed through combat vehicle's aiming system

belt loading machine



Technical Characteristics

Model	C	W	WOM	TL	BL	TF	O	LS	RF	MER	AB
Light Machine Gun M84	7.62 x 54R	8.8	-	1175	603	Automatic	Gas	Rotating Bolt	700-800	1000	3+2
Machine Gun M84	7.62 x 54R	13.3	4.5	1175	603	Automatic	Gas	Rotating Bolt	700-800	1000	3+2
Machine Gun M86	7.62 x 54R	11.6	-	1100	780	Automatic	Gas	Rotating Bolt	700-800	1000	3+0

C- Calibre (mm), MC- Magazine capacity, W- Weight of weapon (kg), WOM- Weight of mount (kg)

TL- Total length (mm), BL- Barrel length (mm), TF- Type of fire, O- Operation, LS- Locking system, RF- Rate of fire (rds/min),

MER- Maximum effective range, AB - recommended number of ammunition boxes (250 + 100 rds)

Machine Gun M87



ammunition boxes (60 rds)

M87 heavy machine gun is based on the design of the famous NSV, the best heavy machine gun ever designed. This design provides reliable, jam-proof operation in any terrain or weather conditions.

- empty cases ejected forward
- spare barrel extends the service life of the weapon

PURPOSE

- * anti-aircraft machine gun mounted on tanks and armoured vehicles
- * providing efficient anti-aircraft protection for highly mobile, mountain light infantry units and engagement of long-range ground targets
- * providing efficient fire against naval and costal targets



belt loading machine

Spare parts (including spare barrel), accessories, ammunition boxes (60 rds), cartridge belts and belt loading machine (on manufacturer's recommendation or on customer's demand) are delivered with each machine gun set.

Depending on purpose and the type of ordnance on which is mounted, the gun is fitted on the appropriate mount.



Machine Gun M02 Coyote



Machine Gun M02 "Coyote" is the M87 machine gun put onto cradle fixed to a tripod. Pistol trigger mechanism, stock with recoil pad and scope are fitted. These high mobility of the weapon and excellent fire control.

Primary purpose of M02 Machine Gun is efficient anti-aircraft protection for highly mobile, mountain light infantry units and engagement of long-range ground targets.

Machine Gun M07



Machine Gun M07 is the M87 Machine Gun fitted on a vehicle mount.

Trigger mechanism with control levers is assembled to the machine gun.

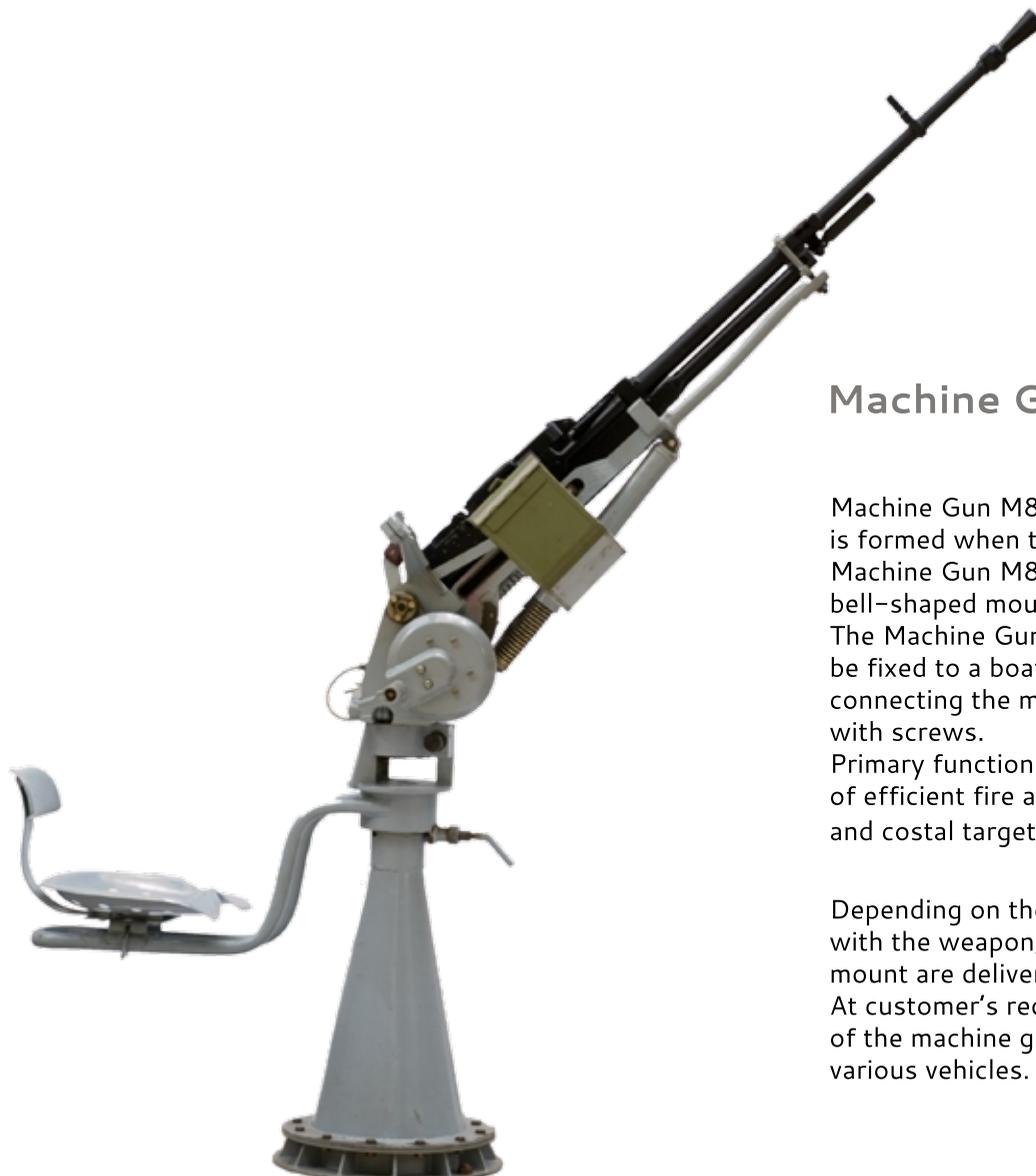
Primary purpose of M07 is efficient anti-aircraft protection for highly mobile mountain light infantry units and engagement of long-range ground targets.

Technical Characteristics											
Model	C	W	WOM	TL	BL	TF	O	LS	RF	MER	AB
Machine Gun M87	12.7 x 108 .50 Brown.	24.8	9.3	1560	1100	Automatic	Gas	Open bolt	700	1500	3
Machine Gun M87 TANK		63.3	38.5	1750	1100	Automatic	Gas	Open bolt	700	1500	3
Machine Gun M87 NAVAL		125.8	101	2400	1100	Automatic	Gas	Open bolt	700	1500	3
Machine Gun M02 Coyote		48.8	24	1970	1100	Automatic	Gas	Open bolt	700	1500	6
Machine Gun M07		43.8	19	1760	1100	Automatic	Gas	Open bolt	700	1500	3

C- Calibre (mm), MC- Magazine capacity, W- Weight of weapon (kg), WOM- Weight of mount (kg), TL-Total length (mm), BL- Barrel length (mm), TF- Type of fire, O- Operation, LS- Locking system, RF- Rate of fire (rds/min), MER- Maximum effective range, AB- Recommended number of ammunition boxes (60 rds)

Machine Gun M87 TANK

Machine Gun M87 – TANK version is the M87 Machine Gun fitted to a rotating base assembly. Rotating base can easily and quickly change elevation through spring fitted elevation mechanisms. The position is fixed by a fixing mechanism of the mount. This mount is fitted to tanks or light armoured vehicles.



Machine Gun M87 NAVAL

Machine Gun M87 – NAVAL version is formed when the tank version of Machine Gun M87 is assembled to the bell-shaped mount.

The Machine Gun M87 – NAVAL can be fixed to a boat or a vehicle by connecting the mount to the deck with screws.

Primary function of M87 Naval is provision of efficient fire against water-surface and coastal targets.

Depending on the type of mount, together with the weapon, accessories for the mount are delivered.

At customer's request, described versions of the machine gun can be assembled to various vehicles.

Automatic Grenade Launcher 30mm M93

Automatic Grenade Launcher M93 is an infantry support weapon intended for direct or indirect fire support against soft skinned targets at distances up to 1700 m, and also fortification targets and light armoured vehicles at distances up to 1000 m. Automatic Grenade Launcher M93 set includes: 30 mm Grenade Launcher, tripod, optical sight NSBG-1, ammunition boxes with belts (30 links).



Complete weapon set includes optical sight NSBG-1, that enables direct, semi-direct and indirect aiming and aiming in low visibility, and also the rectification sight DR-30 for rectification and testing of rectification without firing live ammunition.

Automatic Grenade Launcher M93 fires automatic only and the rate of fire can be changed. The barrel is chrome plated.

Automatic Grenade Launcher M93 is fed from the belt placed in the drum. The drum has the capacity of 29 grenades.

It fires 30 mm HE, cumulative, practice and practice-marker grenades.

The belt is loaded by the belt loading device supplied within the weapon set of Automatic Grenade Launcher M93.

At customer's request and depending on tactical purpose, Automatic Grenade Launcher M93 can be installed on combat vehicles and helicopters.

changeable rate of fire



optical sights



drum magazine (29 grenades)



iron sights

Technical Characteristics

Model	C	DC	W	WT	TL	BL	TF	O	LS	MER
Automatic Grenade Launcher 30 mm	30	29	35.5	14	857	380	Automatic	Blowback	Inertial	1700

C- Calibre (mm), DC- Drum capacity, W- Weight of weapon with drum (kg), WT- Weight of tripod (kg), TL- Total length (mm), BL- Barrel length (mm), TF- Type of fire, O- Operation, LS- Locking system, MER- Maximum effective range (m)

Underbarrel Grenade Launcher



Underbarrel Grenade Launcher is intended for neutralization of soft skinned targets and unarmoured vehicles:

50 to 350 m – direct fire (lower part of angles on aiming device)

200 to 300 m – indirect fire (lower part of angles on aiming device)

Underbarrel Grenade Launcher fires the following types of ammunition:

- HE
- cumulative
- incendiary
- smoke
- practice

The design prevents firing from Underbarrel Grenade Launcher when it is not attached to the rifle, although it operates as a system that is separate from the rifle. The barrel interior is chrome plated.

Rubber pad is fitted to the stock of the rifle to absorb recoil during firing.

In direct firing, aiming is done through iron sights (front and rear).

In indirect aiming, the shooter uses plummet.

Underbarrel Grenade Launcher is carried in its holster or on a combat vest (when stripped).

The complete weapon set includes a carrying bag for 10 grenades.

On customer's request, Underbarrel Grenade Launcher can be adapted to fit the rifles of various manufacturers.

Versions:

BGP – 40 mm is a version that fits to Assault Rifles: M21, M21S, M70B3 and M70AB3.

BGP-40 mm M70 is a version that installs to Assault Rifles M70B1 and M70AB2.

The difference between these two versions is in parts dimensions of the rifle assembly.



BGP-40mm M70



Rubber pad



Underbarrel grenade launcher attached to M21 assault rifle

Technical Characteristics

Model	C	W	WRP	TL	BL	TF	SDD	SDI
BGP – 40 mm	40	1.5	0.15	323	120	Single shot	50-400	200-350
BGP – 40 mm M70	40	1.5	0.15	323	120	Single shot	50-400	200-350

C- Calibre (mm), **W**- Weight of weapon (kg), **WRP**- Weight of rubber pad (kg), **TL**-Total length (mm), **BL**- Barrel length (mm), **TF**- Type of fire, **SDD**- Sight division for direct aiming (m), **SDI**- Sight division for indirect aiming (m)

Pistols

Pistol CZ 999 Scorpion



PISTOL CZ999 Scorpion

The pistol CZ999 Scorpion is a semi-automatic, recoil operated pistol.

It features aluminium alloy frame, chrome plated barrel, double-row 10 or 15 rounds magazine (depending on caliber), loaded chamber indicator and ambidextrous controls.

Pistol EZ 9

PISTOL EZ9

The EZ9 pistol is based on the design of the CZ999 Scorpion. Additional features are: Picatinny rail and an open-type hammer.



PISTOL EZ9 Compact

Pistol EZ9 Compact is a version of standard EZ9 pistol with barrel shortened by 10mm. All other characteristics, except the barrel length, are identical to the characteristics of standard model.

EZ 9 Compact



Picatinny rail



open-type hammer



ambidextrous controls



loaded chamber indicator



Technical Characteristics

Model	C	MC	W	TL	BL	H
CZ 999 Scorpion	9	15 / 10	0.93	198	108	140
EZ 9	9	15 / 10	0.95	198	108	140
EZ 9 Compact	9	15 / 10	0.90	188	98	140

C- Calibre (mm), MC- Magazine capacity, W- Weight of weapon (kg), TL- Total length (mm), BL- Barel length (mm), H- Height (mm)

SIGNALING CARTRIDGE 38mm

APPLICATION

Signaling cartridge is providing high intensity signaling and illumination, for ground, sea and air use.

DESCRIPTION

Body of cartridge is made of aluminium, cylindrical shape, loaded with ejecting charge and star. Principle of acting is thermal-generating. It is sealed with aluminium closing disc for waterproofing. Signals are available in white, green and red color. Range of cartridge is minimum 100m.

OPERATION

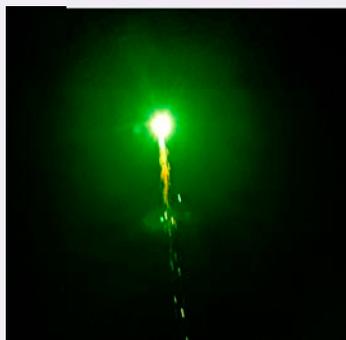
The cartridge is loaded and fired vertically, from the suitable 38mm weapon. Time of light intensity is approximately 6 seconds.

SPECIFICATION

Diameter: 38mm
Height: 122mm
Weight: 105 ± 10 g
Weight of signaling mixture: 45g
Delay time: 2-3 seconds
Range: min 100m
Star burning time: 6 ± 1 s
Shelf life: 5 years

Transport packing: waterproof cartoon box
Inner packing: welded PE bag
Box dimensions: 100x440x270mm
Number of units in the box: 40 pcs
Gross weight of the transport packing: 6kg

UN 0054, Cartridges, signal
Class 1.3 G



SMOKE PADS FOR PRACTICE MINES

APPLICATION

They are designed for the training of the army while performing exercises of arming and disarming mines. When completed with military exercises mine, with its smoke effects, imitates the principle of battle mines action.

DESCRIPTION

The body of the pad is cylindrical and made of aluminum, filled with pyrotechnic smoke mixture. Completing of smoke effect in mines imitates effect of battle mine and tactical preparation and application in combat. Color of smoke is different, depending on the type of the cartridge.

OPERATION

They are used by placing in the appropriate slot of the practice mine. Activating is with the appropriate military practice igniter VUMTA-4, VUANU-1, or military practice or electric detonator cap (VDK-8, VKE). Depending of application and the required amounts of smoke they are producing as Smoke pad for anti infantry and anti magnetic practice mine UD for VMPA-1A, Smoke pad for anti infantry fragmentation practice mine with a guided effect UD for VMPRUD, Smoke pad for practice tank mine-magnetic UD for VMTA-4 or Smoke pad for practice tank mine-bursting UD for VTMRP-6.

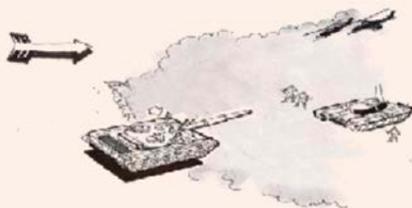
SPECIFICATION

	UD za VMPA-1A	UD za VMPRUD	UD za VMTA-4	UD za VTMRP-6
Diameter (mm)	20	20	51	51
High (mm)	50	80	50	50
Weight of pad (g)	32	2	5.5	10.5
Color of smoke	white	white	yellow	yellow
Activation	Appropriate igniter			
Smoke emission time (s)	min 5	min 5	min 5	min5
Shelf life	5 years			

	UD za VMPA-1A	UD za VMPRUD	UD za VMTA-4	UD za VTMRP-6
Dimensions of box (mm)	200x200x250	200x275x380	250x250x250	250x250x250
Number of units	400	400	100	100
Gross weight of transport pack (kg)	26	25	23	24

Transport packing : waterproof carton box
Inner packing : PE bag

UN 0303
Class 1.4G



INITIAL DEVICE FOR TRAINING

APPLICATION

Initial devices for practice are designed for completion and initiation of practice mines (igniters for practice), training soldiers and officers in arming and disarming mines, to activate the smoke pads of practice mines and explosive charges for exercise, as well as the training to perform mining.

DESCRIPTION

Igniter practical, antimagnetic, tread, universal VUANU-1, is a universal type, with a body made of plastic and with initial part from practice blasting cap. VDK-8 is cylindrical, made of aluminum. Consists of aluminum shell and pyrotechnic detonating mixture. The bottom of the cap is painted white and marked with the letter "V". Pyrotechnic mixture is pressed into the cap in 3 layers. The first two layers are using for burning of cap and activating of device, and a third layer to transfer initiation from safety fuse. VUMTA 4 is made of plastic, filled with the pyrotechnic mixture. VKE consists of cap with a pyrotechnic mixture and electrical flammable head. Mixture is pressed into the cap in three layers. First two layers are using for burning of cap and activating device, and the third layer for transfer of initiation from the EZG. Electrical flammable head (EZG) is designed for transmission of initiation to pyrotechnic mixture.

OPERATION

VUANU-1 is applying by putting on the provided place at practice mine. Trampling on across the igniter, mixture is activated and transfers impulse to VDK-8 which activates smoke pad. VUTMA-4 is putting into position at practice mine VTMA-4, and activating the igniter activates smoke pad that imitates the principle of lethal mine effect. VKE is activating electrically by means of electrical machines ignition or manual inducer. VDK-8 is activating with safety fuse. By activating the fuse, impulse is transmitted to the primer which is releasing white smoke.

SPECIFICATIONS

	VUANU-1	VUMTA-4	VKE	VDK-8
Diametar (mm)	20	38	7	51
High (mm)	76,5	50	56	45
Weight (g)		72	15,5±10,2	11,9
Force of activation	80-280N	80 daN-220Dan	-	-
Shelf life	5 years			

	VUANU-1	VUMTA-4	VKE	VDK-8
Dimensions of box (mm)	240x270x280	300x290x300	320x245x270	280x270x245
Number of units	300	120	500	4200
Gross weight of transport pack (kg)	8,7	8	9	7

Transport packing : waterproof carton box

UN 0431
Class 1.4G



CANNON SHOCK SIMULATOR M -81, P1

TU M-81,P1

APPLICATION

TU M-81, P1 is explosive device designed to simulate effects of artillery and mortar firing by flash, sound and smoke. It is applicable for tactical training to simulate real battlefield conditions. The sound effects range is up to 1200 m and smoke up to 1300 m.

DESCRIPTION

The body is made of polystyrene, olive-gray color, cylindrical shape, filled with black powder. Under cover cap is placed friction or electrical impulse igniter.

OPERATION

Activation is with friction or an electrical impulse, with time delay of 25s, in which the operator throws activated UT-M81 to a safe distance. After an appropriate delay time is activating primary pyrotechnic charge (Black powder) which produces a burst strength of about 120 dB, with the releasing of smoke.

SPECIFICATIONS

Diameter : 45 mm
Height : 105mm
Explosive loading: black powder
Mass of explosive loading : 65 g
Activation:
F-Safety fuse
E-Electric firing cap
Delay time: 25-30s
Activation: by hand
Shelf life : 5 years

Transport packing : waterproof carton box
Inner packing : PE bag
Dimensions of box: 530x270x220mm
Number of units in the box: 100
Gross weight of transport packing: 18 kg

UN 0432
Class 1.4 S



SMOKE POT

APPLICATION

Smoke pot is a type of pyrotechnic product charged with neutral smoke composition intended to generate permanent smoke for screening movements, live stationary and moving targets, wide areas and various objects in different tactical situations. It can also be used for ground to ground signaling and for ground recognition marking for aircraft and helicopters and for indicating wind speed and direction.

DESCRIPTION

Smoke pot is a device for screening and camouflaging. Body of the can is cylindrical made of steel plate, filled with HC mixture.

OPERATION

Smoke pot is activating with friction or electrical igniter. After putting igniter in a position, putting pot at the ground, and activation, from the smoke pot is emitting dense white/gray smoke in appropriate time, depending of the size of the can. Depending of application and quantity of smoke, can be produced different types KD-1, KD-2, KD-5, KD-10, KD-45.

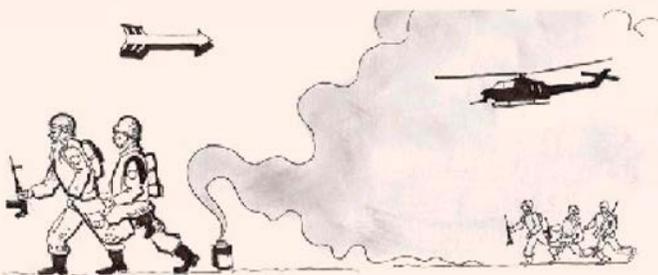
SPECIFICATIONS

	KD-1	KD-2	KD-5	KD-10	KD-45
Diameter (mm)	60	80	150	185	300
High (mm)	148	235	240	285	465
Mass of smoke pot	0,6	2	5,5	10,5	45
Mass of loading	0,45	1,6	4,5	8,5	42
Igniter	Friction/electrical				
Smoke emission time (s)	1.5 min	4 min	10 min.	20 min.	25 min.
Shelf life	5 years				

	KD-1	KD-2	KD-5	KD-10	KD-45
Dimensions of box (mm)	526x330x160	526x330x160	325x315x260	380x200x300	330x330x550
Number of units	40	12	4	2	1
Mass of transport packing (kg)	26	25	23	24	50

Transport packing : waterproof carton box
Inner packing : PE bag

UN 0303
Class 1.4G



SMOKE CAN- M79

KD -M79

APPLICATION

KD-M79 is a type of pyrotechnic product charged with neutral smoke composition intended to generate permanent smoke for screening movements, live stationary and moving targets wide areas and various objects in different tactical situations. It can also be used for ground to ground signaling and for ground recognition marking for aircraft and helicopters and for indicating wind speed and direction.

DESCRIPTION

KD-M79 is a device for screening and camouflaging. Body of the can is cylindrical made of steel plate, filled with HC mixture.

OPERATION

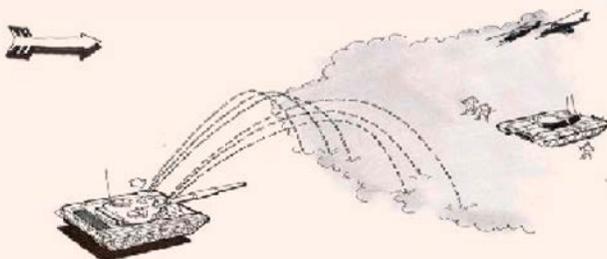
KD-M79 F is activating by hand, pulling up friction igniter which is placed at the body of the can. Electric activation is applicable from the launcher 82mm at the combat vehicle. After activation and appropriate delay time, at the range of 100m is forming smoke screen 75-100m long and 10 – 20 m wide. This type of can could be produced with cassette loading.

SPECIFICATION

Diameter: 82 mm
Height: 152 mm
Mass: 1500 g
Active charge: HC
Active charge mass: 920 g
Ejecting charge (NGB-061 powder) mass: 2,2 g
Igniter: electrical or friction
Delay: 2,6 s
Launching: from launcher 82 mm or by hand
Minimal range: 100 m
Screening smoke size: length 75-100 m, width 10-20 m
Smoke emission time: 3,5-5,5 min.
Shelf life: 5 years

Transport packing : waterproof carton box or wooden box
Inner packing : cartoon shell
Dimensions of box:582x348x260mm
Number of units in the box: 12
Gross weight of transport packing: 32 kg

UN 0303
Class 1.4 G



SMOKE CAN- M90

KD –M90

APPLICATION

KD-M90 is a pyrotechnic device with irritating mixture designed for a special military and police units in anti riot control operations intended to generate permanent smoke for temporary incapacitating of unprotected crowd in open area. 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.

DESCRIPTION

Body of the can is cylindrical, made of steel plate. Consists of pyrotechnic irritating mixture, based on CS. Principle of acting is thermal-generating (when hits the target, emits smoke wave of active substance in rated time).

OPERATION

KD-M90 is activating from the launcher 82mm at the combat vehicle. After activation and appropriate delay time, at the range of 100m is forming smoke screen 75-100m long and 10–20 m wide. This type of irritating can could be produced with cassette loading.

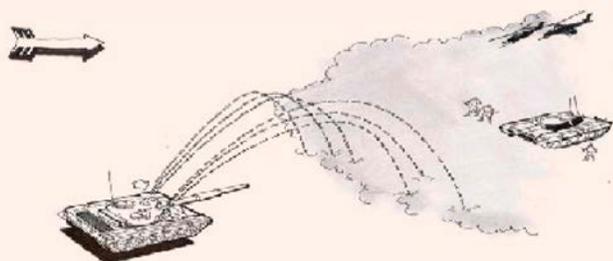
SPECIFICATION

Diameter: 82 mm
Height: 152 mm
Mass: 1140 g
Active charge: CS
Active charge mass: 550 g
Ejecting charge (NGB-061 powder) mass: 2,2 g
Igniter: electrical
Delay: 2,6 s
Launching: from launcher 82 mm
Minimal range: 100 m
Screening smoke size: length 75-100 m, width 10-20 m
Smoke emission time: 60s
Shelf life: 5 years

Transport packing : waterproof carton box or wooden box
Inner packing : cartoon shell
Dimensions of box:582x348x260mm
Number of units in the box: 12
Gross weight of transport packing: 24 kg

UN 0301

Class 1.4 G



SMOKE CAN TOXIC FOR PRACTICE KODS

APPLICATION

KODS are designed for the purposes of tactical training under conditions of chemical contamination in open space, generate waves of toxic CS smoke. Could be also used to contaminate air in the wide area at ground for anti riot control. Provokes hard irritation, teasing of eyes and mucous membranes, plenty of tearing, uneasiness to see, cough, uneasiness breath and choking without inflicting permanent injury. Can be used by ground forces for a variety types of training purposes particularly for application of personal protective equipment.

DESCRIPTION

Body of the can is cylindrical, made of steel plate. Consists of pyrotechnic irritating mixture, based on CS. Principle of acting is thermal generating (when hits the target, emits smoke wave of active substance in rated time).

OPERATION

KODS is activating with friction or electrical igniter. After putting igniter in position and putting can at the ground, and activation, from the smoke pot is emitting dense irritating smoke in appropriate time, depending of the size of the can. Depending of application and quantity of the smoke, can be produced in types KODŠ M3F i KODŠ M3E, KODŠ M4F i KODŠ M4E, KODPŠ M1F i KODPŠ M1E.

SPECIFICATIONS

	KODŠ M3	KODŠ M4	KODPŠ
Diameter (mm)	80	180	184
High (mm)	130	240	235
Weight of can (kg)	0,7	5,2	3,75
Mass of active charge (kg)	0,45	4,0	2,75
Smoke emission time (min.)	min 8	min 15	min 12
Activation	By hand		
Igniter	Friction/electrical		
Shelf life	5 years		

Transport packing : waterproof carton box or wooden box

Inner packing : PE bag

KODŠ M3:

Dimensions of box:435x265x150mm

Number of units in the box: 15

Gross weight of transport packing: 12 kg

KODŠ M4:

Dimensions of box:390x390x260mm

Number of units in the box: 4

Gross weight of transport packing: 22kg

KODPŠ M1:

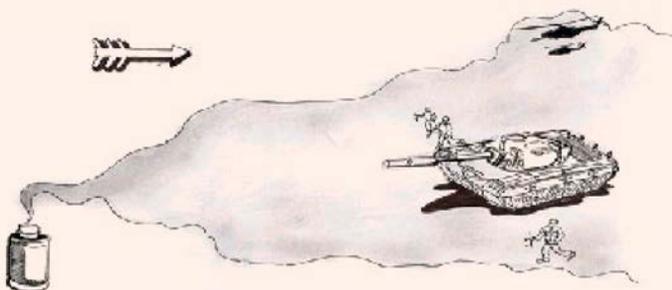
Dimensions of box:390x390x260mm

Number of units in the box: 4

Gross weight of transport packing: 16 kg

UN 0301

Class 1.4 G



ANTI-TANK DESTRUCTIVE PIERCING MINE - 6

TMRP - 6





ANTI-TANK DESTRUCTIVE PIERCING MINE - 6 (TMRP-6)

PURPOSE: FOR DISABLEMENT AND DESTRUCTION OF TANKS AND OTHER FIGHTING AND NON-FIGHTING VEHICLES BY DESTRUCTIVE PIERCING ACTIVITY

1. Item dimensions Ø 290 x 132 mm
2. Item mass 7.2 kg
3. Explosive charge type Cast TNT
4. Explosive charge mass 5.1 kg
5. Way of initiation Through the fuze
6. Fuze arming (time) 1 or 4 minutes
7. Way of fuze activation - Through a lever
- By stepping on a mine plate
8. Activation force (daN) - Through a lever 1.3 - 1.7
- By stepping 150 -350
9. Stepping on area 214 cm²
10. Resistance to air impact wave To 3 daN/cm²
11. Functions in temperature range - 30° C to + 60° C
12. Airtightness (waterproof) To 0.2 bar
13. Way of setting By hand
Minelaying PMR-3b
14. Way of transport Capable for any type of transportation
15. Stability in mine field 6 months in the most unfavourable conditions
16. Way of packing In a box, 4 (four) mines complete
17. Package dimensions 330 x 650 x 330 mm
18. Gross weight 43 kg
19. Storage time 15 years
20. Piecing action Penetrates 40 mm stell plate from the distance of 800 mm

ANTIMAGNETIC ANTITANK MINE - 4



TMA - 4



ANTIMAGNETIC ANTITANK MINE - 4 (TMA-4)

PURPOSE: FOR DESTRUCTION OF TANKS AND OTHER FIGHTING AND TRANSPORT VEHICLES

1. Activation force 100 - 200 daN
2. Stepping-on area \varnothing 200 mm (314 cm²)
3. Explosive charge type Cast TNT
4. Explosive charge mass 5.5 kg
5. Functions in temperature range - 30°C to - 60°C
6. Safety in transport and packing Capable for any type of transportation
7. Resistance to air impact wave To 3 bars
8. Airtightness To 0.2 bars
9. Way of initiation Through a fuze
10. Way of setting - Manually
- By mine-layer
11. Stability in mine field 6 months in the most unfavourable conditions
12. Item dimensions \varnothing 285 x 110 mm
13. Item mass 6.3 kg
14. Kind of packing Barrel
15. Number of pieces in a packing set 4
16. Package dimensions \varnothing 330 x 370 mm (0.032 m³)
17. Gross weight 28 kg
18. Storage time 20 years

RAFAL BOMB FOR AEL MINE CATCHER (RBAEL)

By series of underwater explosions this bomb creates the sound that lasts for several seconds, and imitates the sound of a moving boat or ship, only stronger than the engine signal itself (20-30 db). Such created signal activates the acoustic signal of the floating mine in the distance where it can not damage the ship.

Use of this bomb provides safe movement of boats and ships in water possibly containing floating mines.

