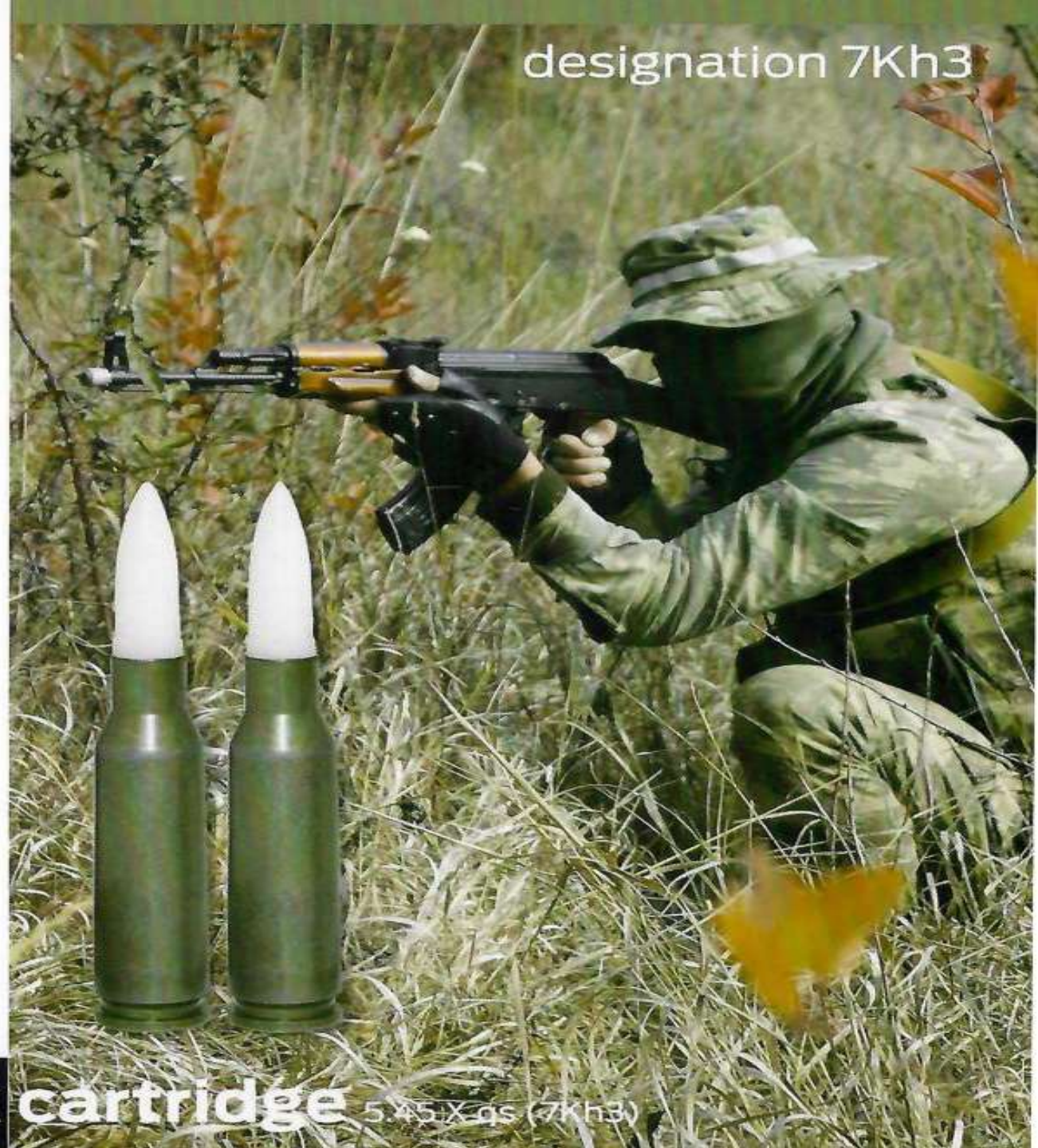


This cartridge is designed to imitate the sound effect of firing is used to firing all types of organic weapons chambered for the 5.45 mm cartridges. Firing blank cartridges requires a special plug screwed onto the muzzle to ensure gas pressure sufficient to power gas-operated weapons and disintegrate the dummy bullet. The dummy bullet is painted white.

Specifications

Caliber, mm	5.45x39
Weight, g: cartridge	6.6
bullet	0.24
powder charge	1.0
Cartridge length, mm	57_0.8
Liade powder	Sf 033fl
Cartridge case material	steel

designation 7Kh3



5.45 mm blank cartridge 5.45x39qs (7Kh3)

The cartridge is used for target designation and arbitrary correction. it is used with all types of organic weapons chambered for 5.45 mm cartridge. The tip of the bullet is painted green.



Specifications

Caliber, mm	5.45x39
Weight, g:	
cartridge	10.3
bullet	3.23
powder charge	1.44
Cartridge length, mm	57_0.8
Grade powder	SSNf-30/3.69
Muzzle velocity, V_{25} , m/s	883
Max powder gas pressure, MPa (kgf/cm ²)	≤ 294.2 (3000)
Fire consistency at 300-m range (R_{50}), sm, max	14
Tracer action distance, m	800
Case material	steel

5.45 mm cartridge with a tracer bullet



This cartridge is designed to engage unshielded targets at ranges of up to 1.200 m, flak vest-clad manpower at ranges of up to 100 m, personnel located behind lightly armored barriers at ranges of up to 1.000 m and aerial targets at up to 900 m.

it is used for firing all types of weapons chambered for the 5.45 mm cartridge.

The bullet is not painted.

Specifications

Caliber, mm	5.45x39
Weight, g:	
cartridge	10.19...11.08
bullet	3.49...3.63
Cartridge case	5.1...5.75
powder charge	1.44
Cartridge length, mm	57 _{-0,8}
Grade powder	SSNf-30/3.69
Muzzle velocity, V_{25} , m/s	870 - 890
Max powder gas pressure, MPa (kgf/cm ²)	□ 294.2 (3000)
Fire consistency at 100-m	
range (R_{50}), sm, max	3.5
Effective penetration distance, m:	
St3 steel plate, 16 mm thick	100
armor plate, 5 mm thick	150
6Zh85T armor vest	200
Case material	steel

5.45x39 mm cartridge with enhanced penetrating bullet (7N10)

The cartridge is used to imitate the sound of shooting during training. Compatible with all operational 7.62x39 mm weapons. Firing blank cartridges requires a special plug screwed onto the muzzle to ensure gas pressure sufficient to power gas operated weapons and disintegrate the dummy bullet.

designation
57-Kh-231



Specifications

Caliber, mm	7.62x39
Cartridge weight, g	7.7 ... 8.7
Powder charge weight, g	0.77
Cartridge length, mm	47.7 ... 48.2
Grade powder	P-125
Case material	steel or brass

7.62 mm blank cartridge 7.62Xqs

designation
57-N-231U

The cartridge is designed for engagement of unsheltered manpower at firing ranges of up to 400 m in special operations. It is fired from the AKM (AKMS) assault rifle fitted with the PBS-1 device. The bullet point is painted black and green.

Specifications

Caliber, mm	7.62x39
Weight, g: cartridge	20.2
bullet	12.55
powder charge	1.0
Cartridge length, mm	56
Grade powder	P-45
Muzzle velocity, V_{25} , m/s	293
Fire consistency at 100-m range (R_{50}), sm, max	3.5
Case material	steel or brass



7.62 mm cartridge with low velocity bullet 7.62 US qs

This cartridge is designed to engage hostile manpower and fire weapons at a range of up to 800 m when firing the assault rifle and 1,000 m when firing the light machine gun. It is fired from **7.62 mm Kalashnikov** assault rifles and light machine guns, **SKS** carbine and **RPD** light machine gun. The bullet is not painted.

designation
57-N-2315
Mod. 1943



Specifications

Caliber, mm	7.62x39
Weight, g:	
cartridge	15.8 ... 16.8
bullet	7.75 ... 8.05
cartridge case	6.25 ... 6.8
powder charge	1.56
Cartridge length, mm	56
Grade powder	SSNf-30/3.97
Muzzle velocity, V_{29} , <i>mis</i>	710 - 725
Max mean powder gas pressure, MPa (kgf/cm ²)	;;274.6 (2800)
Fire consistency at	
300-m range (R_{50}), sm	:5:7.5
Effective penetration range, m:	
steel helmet	1.000
St3 steel plate, 6 mm thick	300
6Zh85T flak vest	60
Case material	steel or brass

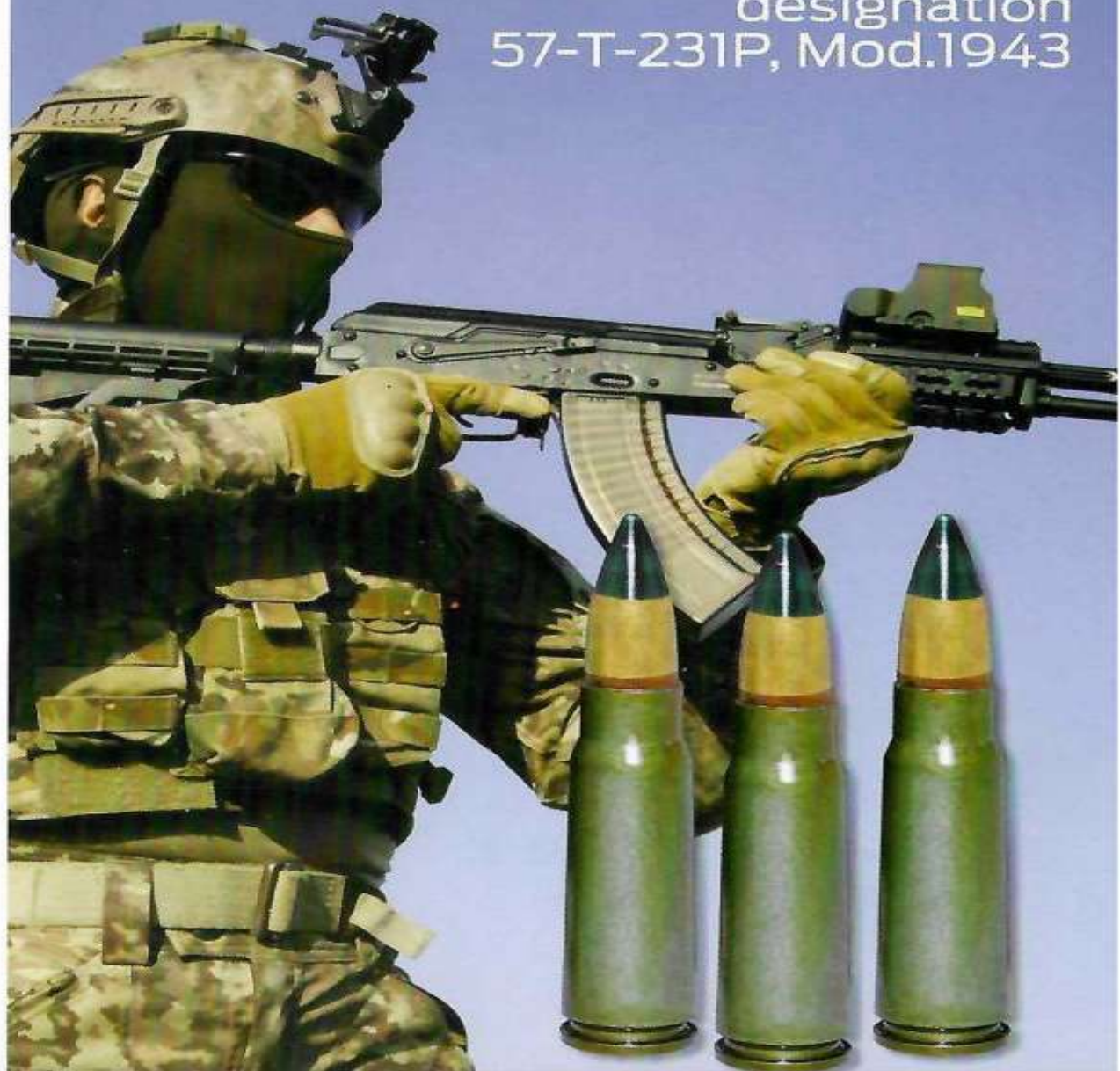
7.62 mm cartridge with steel core bullet 1.62Psqs

The cartridge is used for target designation and arbitrary correction. It is fired from 7.62 Kalashnikov assault rifles and light machine guns, SKS carbine and RPD light machine gun. The tip of the bullet is painted green.

Specifications

Caliber, mm	7.62x39
Weight, g: cartridge	16.1
bullet	7.57
powder charge	1.56
Cartridge length, mm	56
Grade powder	SSNf-30/3.97
Muzzle velocity, V_{25} , m/s	718
Max mean powder gas pressure, MPa (kgf/cm ²)	◆274.6 (2800)
Fire consistency at 300-m range (R_{50}), m, max	14
tracer action distance, m	800
Cartridge case material	steel or brass

designation
57-T-231P, Mod.1943



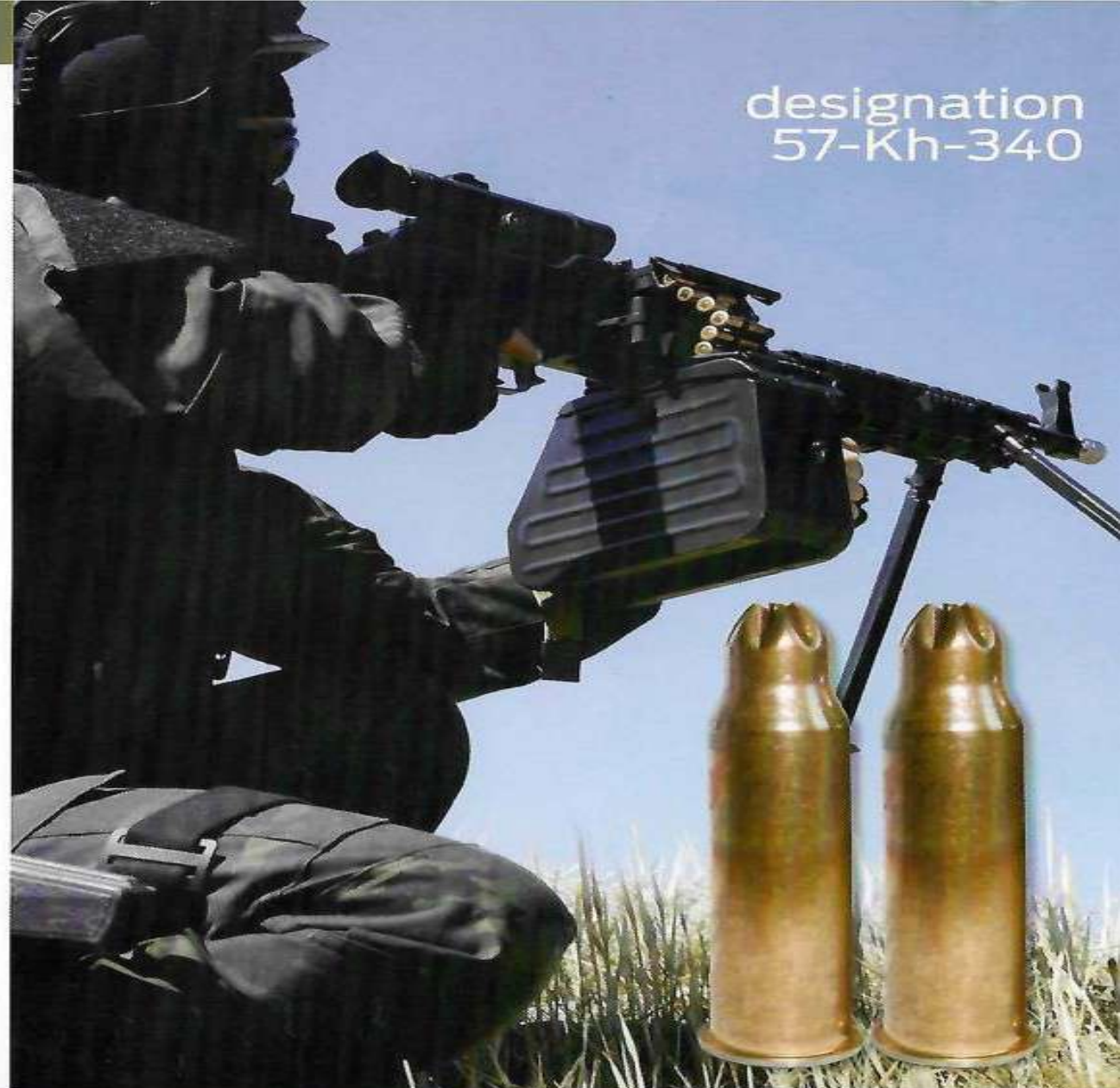
7.62 mm cartridge with a tracer bullet

The cartridge is used for imitation a sound of shooting during training. Compatible with all operational 7.62x54 mm weapons. Firing blank cartridges requires a special plug screwed onto the muzzle to ensure gas pressure sufficient to power gas-operated weapons and disintegrate the dummy bullet, and other special devices according to relevant regulations.

Specifications

Caliber, mm	7.62x54R
Cartridge weight, g	11
Powder charge weight	1.6
Cartridge length, mm	53.7
Grade powder	Xqr
Case material	steel or brass

designation
57-Kh-340



7.62 mm rifle blank cartridge 7.62 X qs

The cartridge is designed to engage hostile manpower and fire weapons. It is fired from **PK (PKM), PKS (PKMS), PKB (PKMB), PKT (PKTM), UP-7.62, HP-7.62, SGM** and **GShG-7,62** machine guns, as well as **SVO (SVDS), PSL, SV-98** and **"Yirtiji"** sniper rifles.

The bullet is not painted.

designation 57-N-323S



Specifications

Caliber, mm	7.62x54
Weight, g:	
cartridge	22.15 ... 23.1
bullet	9.45 ... 9.75
powder charge	3.15
Cartridge length, mm	77.18 _{-0.15} ^{+0.15} 5
Grade powder	VT or 308 Win
Muzzle velocity, m/s	820 ... 835
Max mean powder gas pressure, MPa (kgf/sm ²)	□284.4 (2900)
Fire consistency at 300-m range (R_{50}), sm, max	9
Effective penetration distance, m:	
St3 steel plate, 6 mm thick	520
6Zh85T flak vest	110
Case material	brass or steel

7.62 mm cartridge with steel core bullet 7.62 LPS qs

7,62x54 mm cartridge with armor-piercing incendiary bullet "B-32"

Designation

The cartridge is designed for chambering PK, PKM, PKS, PKMS, UP-7,62, PKT machine guns, sniper rifles SVD in all weather conditions. At customer request cartridges are supplied under the following designations: "B-32"pg, "B-32"bg, "B-32"dg.

Specifications

Caliber, mm	7.62x54
Weight, g: cartridge KV-27 GOST B23241-96 with primer	
- "B-32"pg	21,6...23,6
- "B-32"bg	22,9...24,41
- "B-32"dg	21,6...23,4
Weight, g bullet, g	10,4 _{-0,5}
powder charge, g	3,15
Muzzle velocity, at 25 m range, m/s (for ballistic tip bullet)	860±15
Max powder gas pressure, Mpa (kgf/cm ²) P _{max}	:5303,9 (3100)



7,62x54 mm

This cartridge is designed to designate targets and adjust fire. it is fired from **UP-7,62**, **HP-7,62**, **PK (PKM)**, **PKS (PKMS)**, **PKB (PKMB)**, **PKT (PKTM)**, **GShG-7,62** machine guns as well as **SVD (SVDS)**, **PSL**, **SV-98** and "Yirtiji" sniper rifles. The tip of the bullet is painted green.

Specifications

Caliber, mm	7.62x54
Weight, g	
Cartridge	22
Bullet	9,65
Powder charge	3.2
Cartridge length, mm	
Grade powder	77,18_1_25
Muzzle velocity V_{25} , m/s	VT or .308 Win
Max mean powder gas pressure, MPa	798 - 825
Fire consistency at 300-m range (R_{50}), sm, max	284,4
Tracer burning time, s	15
Case material	3
	steel or brass



7.62x54 mm cartridge with a T-46 tracer bullet

belt & boxes



Metal 7,62x54 mm rifle cartridge belt string is designed for universal and tank machine guns.

The belt consists of separate metal links interconnected with special springs. Depending on type of application the belts are produced in several capacities: 25 (index 6L7M) 100 (index 6L5M) and 200 (index 6L6M). The belt fractions are joined with a cartridge.

The belts are fed with cartridges by using a loading machine or manually. The life time of a cartridge belt ensures its no less than 46 times passing through the weapon's automatic system.

The belts are designed for 7,62x54 mm **Kalashnikov (PK, PKM, UP-7.62, HP-7.62, PKT)** as well as **SGM** and **RP-46** machine guns. They are packed in boxes with capacity of 100, 200 and 250 cartridges. The armored personnel carriers **(BTR, BRDM)** use special boxes with capacity of 250 (**BTR, BROM**) and 1000 (**BMP-1, BMP-2** and etc.) cartridges.

7.62x54 mm rifle cartridges

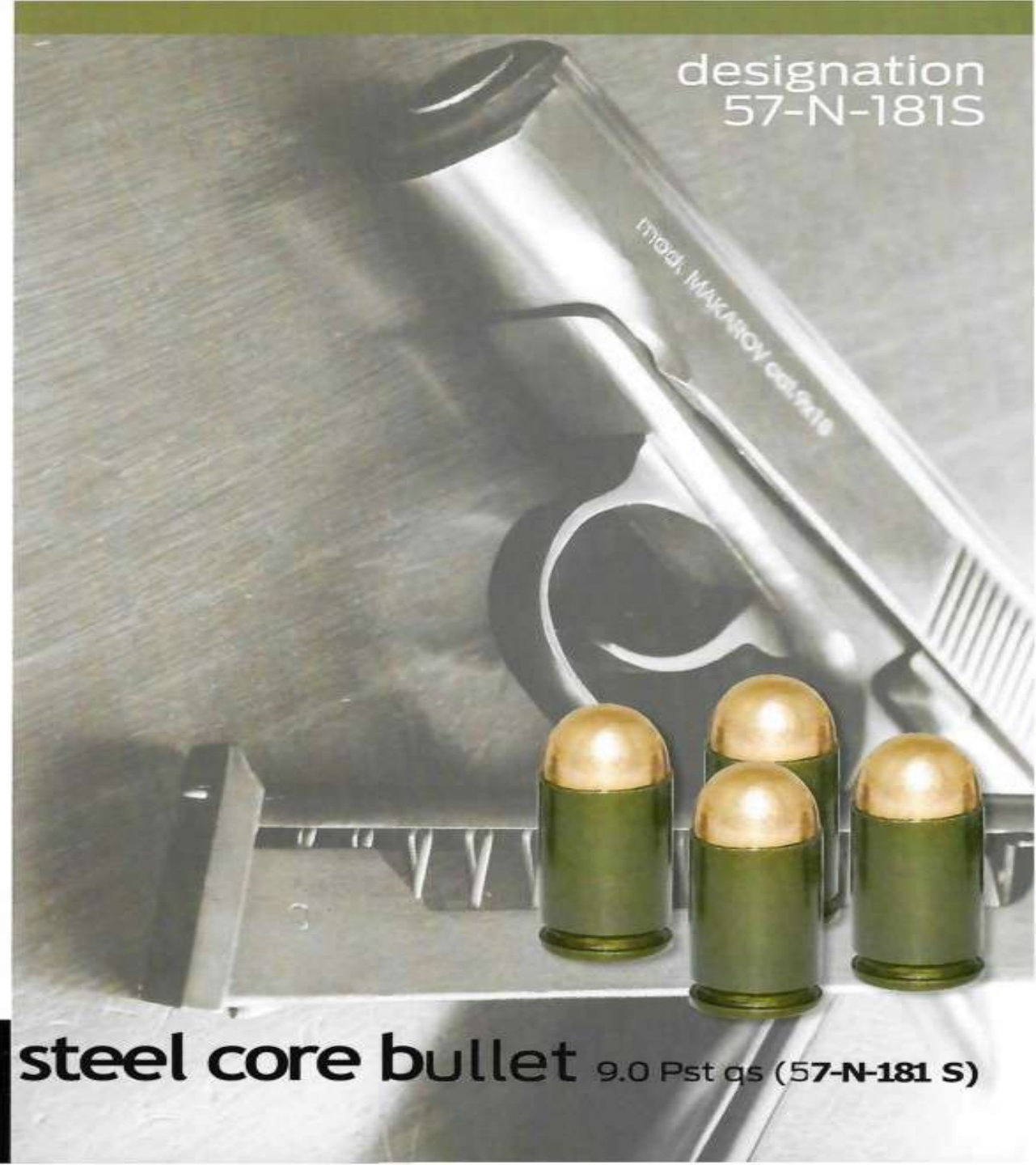
This cartridge is designed to engage manpower at a range of up to 50 m. it is fired from the **PM Makarov** pistol and submachine guns.

The bullet is not painted.

Specifications

Caliber, mm	9x18
Weight, g:	
cartridge	9.26 ... 10.07
bullet	5.75 ... 6.15
cartridge case	3.09 ... 3.44
powder charge	0.25
Cartridge length, mm	25 _{-0.05} 2
Case length, mm	18.1 _{-0.27}
Grade powder	P-125
Muzzle velocity, V_{10} m/s	290 - 315
Max mean powder gas pressure, MPa (kgf/cm ²)	:::252.0 (1200)
Fire consistency at 25-m range { R_{50} }, sm, max	:::3.2
Penetration range St3 steel plate, 1.3 mm thick, m	20
Case material	steel or brass

designation
57-N-181S



9x18 mm

cartridge with steel core bullet 9.0 Pst qs (57-N-181 S)




Specifications

Caliber, mm	9x19
Weight, g:	
cartridge	12.0±0,4
bullet	7.9±0,1
powder charge	0.34
Cartridge length, mm	29.69_0.79
Case length, mm	19,15_Q3
Muzzle velocity, V _{10'} , mis	350 ± 10
Max mean powder gas pressure, MPa (kgf/sm ²)	∴;252.0 (2570)
Fire consistency at	
25 m range (R ₅₀), cm, max	3,2
Case material	steel or brass

The cartridge is designed to engage manpower at ranges of up to 50 - 150 m. Cartridge can be used in pistols and submachine guns. The bullet is unpainted.

9x19 mm pistol Parabellum cartridge

The image shows a military vehicle, possibly a truck or SUV, with a mounted machine gun on top. The vehicle is parked on a dirt road in a hilly, arid landscape. In the foreground, two large, brass-colored blank cartridges are shown vertically. The text and specifications are overlaid on the right side of the image.

Designation 7-H-1

The cartridge is designed to imitate the sound effect of firing from the large caliber machine guns **NSV-12.7 (NSVT-12,7)**, "KORD" during training. Blank cartridges are used jointly with machine gun blank firing devices (muzzle attachment and inserts placed in the machine gun receiver and the ammunition box).

Specifications

Caliber, mm	12.7x108
Cartridge weight, g	80.1
Power charge weight, g	10
Cartridge length, mm:	112
Grade powder	4/7
Cartridge case material	brass

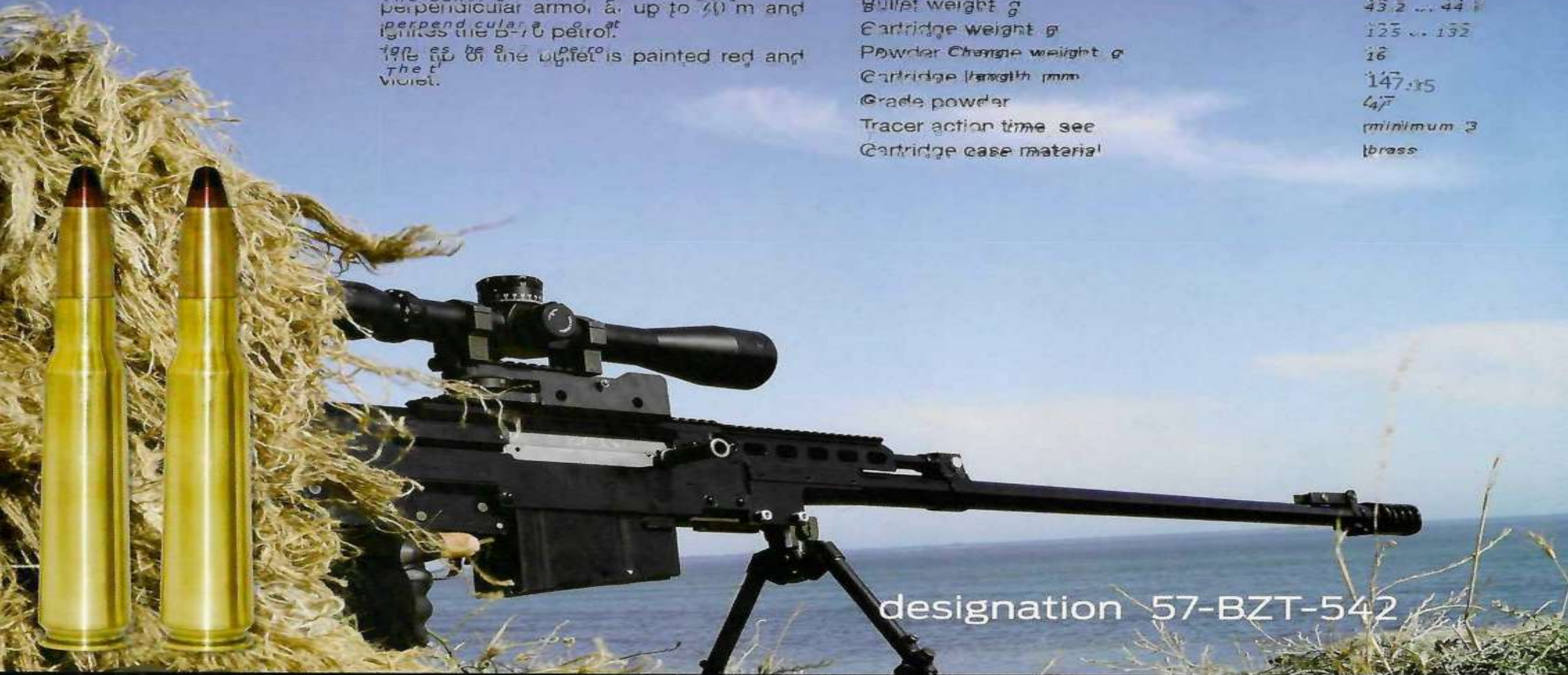
blank cartridge 12.7x108 mm

The cartridge is used for target designation and arbitrary correction of designation and arbitrary targets.

The bullet effectively penetrates 15 mm perpendicular armor, up to 40 m and ignites the B-70 petrol.

The tip of the bullet is painted red and violet.

Caliber, mm	12.7x108
Muzzle velocity, V_{25} , m/s	810 ... 825
Fire consistency at 300 m range (R_{50} , cm), max	18
Max mean gas powder pressure, MPa (kgf/cm ²)	303.8 (3100)
Bullet weight, g	43.5 ... 44
Cartridge weight, g	125 ... 132
Powder Charge weight, g	16
Cartridge length, mm	147.35
Grade powder	47
Tracer action time, see	minimum 3
Cartridge case material	brass



designation 57-BZT-542

12.7x108 mm cartridge with the **BZT-44** armor-piercing incendiary / tracer bullet

Designation 57-H-561

The cartridge is designed to imitate the sound effect of firing from organic weapons chambered for 14,5 mm cartridges during training. Blank cartridges are used jointly with machine gun blank firing devices (muzzle attachment and inserts placed in the machine gun receiver and altered blank cartridge extractors).

Specifications

Caliber, mm	14.5x114
Cartridge weight, g	114.5
Powder Charge weight, g	18
Length, mm	
cartridge	117.2
cartridge case	114
Grade powder	VTJ
Case material	steel



14.5x114 mm blank cartridge

The cartridge is used for target designation and arbitrary correction and ignition of flammable targets. The cartridge is designed to engage lightly armored ground targets (armored personnel carriers), weapon emplacements and targets behind light barriers at ranges of up to 1000 m, concentrated infantry and motor transport at ranges of up to 2000 m and low flying air target at altitudes of up to 2000 m. It is fired from 14.5 mm **KPV**, **KPVT**, **PKP** and **SKP** heavy machine guns, **ZPU-1**, **ZPU-2**, **ZU-2** and **ZPU-4** anti-aircraft machine guns and **IST-14.5** anti-material rifle. Effectively ignites the B-70 petrol. The tip of the bullet is painted red and violet.

Specifications

Caliber, mm	14.5x114
Muzzle velocity, V_{25} , m/s	995 ... 1005
Fire consistency at 300 m range (R_{50}), sm, max	±20
Max mean gas powder pressure, MPa (kgf/cm ²)	±323.6 (3300)
Bullet weight, g	58.5 ... 60.5
Powder Charge weight, g	30
Grade powder	5/7 n/a
Effective tracer distance, m	2000
Effective armor penetration distance (20-mm armor plate set at 20°), m	100
Cartridge weight, g	195±5
Cartridge length, mm	156_15
Cartridge Case material	steel



14.5x114 mm

The cartridge is intended to engage lightly armored targets, firing means which are being behind light shelters and also low-flying targets. It is fired from 14.5 mm **KPV**, **KPVT**, **PKP** and **SKP** heavy machine guns, **ZPU-1**, **ZPU-2**, **ZU-2**, and **ZPU-4** anti-aircraft machine guns and **IST-14.5** anti-materiel rifle. Effectively ignites the 8-70 petrol.

The tip of the bullet is painted red and black.

Specifications

Caliber, mm	14.5x114
Muzzle velocity, V_{25} , m/s	995 ... 1005
Fire consistency at 300 m range (R_{50}), sm, max	20
Max mean gas powder pressure, MPa (kgf/cm ²)	◆323.6 (3300)
Bullet weight, g	60,5
Powder Charge weight, g	31
Grade powder	5/7
Effective tracer distance, m	2000
Effective armor penetration distance (20-mm armor plate set at 20°), m	100
Cartridge weight, g	185
Cartridge length, mm	156 _{-1,5}
Case material	steel



14.5x114 mm



The 23x152 Round with Practice HEI (High Explosive Incendiary) Projectile is intended for drill firing and gun ballistic tests. The Round has the same ballistic characteristics as the HEI Rounds and is intended to replace them in target-practice firing. The ammunition is safe in transport, storage and handling and ensures the reliable performance of the gun systems in all weather conditions. The ammunition is designed for use with guns **2A14**, **2A14M**, **2A7** and **2A7M** of the following 23 mm air-defence gun mounts and their modifications:

- **ZU-23-2**
- **ZSU-23-4 SHILKA**

Basic Characteristics

Caliber	23x152 mm
Operating Temperature	
Range	-50 °C to +50 °C
Shelf Life	15 years

Ballistic Data

Muzzle Velocity	970±10 mis
Probable Deviation	±8 mis
Average Pmax	≤2925 kgf/cm ²

Elements Of Round

Projectile	Practice High Explosive Incendiary
Fuze	Dummy
Propellant	5/7 Cfl
Cartridge case	Steel
Primer	KV N23

Technical Data

Length of round	234.28-237.12 mm
Weight of round	0.450 kg
Weight of projectile	1.885±0.0035 kg
Length of cartridge case	151.5 _{±0.08} mm
Weight of cartridge case	0.172±0.008 kg
Propellant charge mass	0.077 kg

Practice HEI projectile

23x152 mm

The 23x152 Round with HEI-T (Practice High Explosive Incendiary Tracer) Projectile is intended for drill firing and gun ballistic tests. The Round has the same ballistic characteristics as the HEI-T Rounds and is intended to replace them in target-practice firing. The ammunition is safe in transport, storage and handling and ensures the reliable performance of the gun systems in all weather conditions. The ammunition is designed for use with guns **2A14**, **2A14M**, **2A7** and **2A7M** of the following 23 mm air-defence gun mounts and their modifications:

- **ZU-23-2**
- **ZSU-23-4 SHILKA**

Basic Characteristics

Caliber	23x152 mm
Operational Temperature	
Range	-50 to +50 °C
Shelf Life	15 years

Ballistic Data

Muzzle Velocity (max)	970±10 m/s
Probable Deviation	≈ 8 m/s
Average Pmax	≈ 2925 kgf/cm ²

Elements Of Round

Projectile	Practice High Explosive Incendiary Tracer
Propellant	5/7 CfI
Cartridge case	Steel
Primer	KV №3

Technical Data

Length of round	234.28-237.12 mm
Weight of round	0.450 kg
Length of projectile	108.8 _{-0.74}
Weight of projectile	1.885±0.0035 kg
Length of cartridge case	151.5 _{-0.058} mm
Weight of cartridge case	0.172±0.008 kg
Burning time of tracer	not less than 2.5 sec



23x152 mm round with

HEI-T projectile

UT-M88 SP

Fuze for 23x152 ammunition

UT M88 SP is a mechanical, nose, point-detonating fuze with delayed action. The fuze features self-destructive action.

Fuze M88 completes 23x152 mm HEI and HEIT rounds for automatic guns **2A14, 2A14M, 2A7 and 2A7M** of the following 23 mm air-defence gun mounts and their modifications:

ZU-23-2

ZSU-23-4 SHILKA

The fuze is safe in storage, handling and operation and ensures the safe and reliable function of the ammunition in all weather conditions.

Basic Characteristics

Action:	PO; Delayed
Arming:	by set-back and rotational forces
Temperature Range for Firing:	-50 to +50 C
Temperature Range for Storage:	-50 to +50 C
Shelf Life:	15 years

Technical Data

Length of Fuze (max):	52.6 mm
Visible Length (max):	31.2 mm
Intrusion Length (max):	21.4 mm
External Diameter (max):	20.0 mm
Weight of Fuze:	37 g
Type of Booster:	A-30-T
Weight of Booster:	1 g
Thread Size:	Spec. M17.96 x 0.75cl.2a

UT-M88 SP

Fuze for 23x152 ammunition

The 30x165 Round with Practice HEI (High Explosive Incendiary) Projectile is intended for practice firing. The projectile is inert and contains no explosive.

The ammunition is safe in transport, storage and handling and ensures the reliable performance of the gun systems in all weather conditions.

The automatic guns **2A42, 2A38, 2A72** and modifications are mounted on the following carriers:

- Infantry Fighting Vehicles **BMP-2, BMP-3, BMD-2, BMD-3, BTR-80A, BTR-82A** and their modifications
- Reconnaissance Vehicle **"RIS"**
- Air-Defence Complex **"Tunguska"**
- Attack Helicopters **Ka-50** and **Mi-28** and modifications

Basic Characteristics

Caliber	30x165 mm
Operational Temperature	
Range	-50 to +50 °C
Shelf Life	15 years

Elements Of Round

Projectile	Practice High Explosive Incendiary
Fuze	Dummy
Explosive filling	Sulfur Mixture
Propellant	6/7 P-5BPfl
Cartridge case	Steel
Primer	KV-3-1

Ballistic Data

Muzzle Velocity (max)	950 - 970 m/s
Probable Deviation	±5 m/s
Average Pmax	±3600 kgf/cm ²

Technical Data

Length of Round (max)	289-293 mm
Weight of Round	0,842 kg
Weight of Projectile	0.389±0.0006 kg
Length of cartridge case	165_ mm
Weight of cartridge case	0.321±0.010 kg
Propellant Charge Mass	0,123±0.0003 kg



30x165 mm round with

Practice HEI projectile



The 30x165 Round with Practice HE-T (High Explosive Tracer) Projectile is intended for practice firing. The projectile is inert and contains no explosive. The ammunition is safe in transport, storage and handling and ensures the reliable performance of the gun systems in all weather conditions. The automatic guns **2A42**, **2A38**, **2A72** and modifications are mounted on the following carriers:

- Infantry Fighting Vehicles **BMP-2**, **BMP-3**, **BMD-2**, **BMD-3**, **BTR-80A**, **BTR-82A** and their modifications
- Reconnaissance Vehicle "**RIS**"
- Air-Defence Complex "**Tunguska**"
- Attack Helicopters **Ka-50** and **Mi-28** and modifications

Basic Characteristics

Caliber (mm)	30x165
Operational Temperature	
Range	-50 to +50°C
Shelf Life	15 years

Ballistic Data

Muzzle Velocity	950 - 970 m/s
Probable Deviation	s;5 m/s
Average Pmax	s;3600 kgf/cm ²

Elements Of Round

Projectile	Practice High Explosive Tracer
Fuze	Dummy
Explosive filling	Inert sulfur mixture
Propellant	6/7 P-58Pfl
Cartridge case	Steel
Primer	KV-3-1

Technical Data

Length of round	288.45-291.84 mm
Weight of round	0.835 kg
Length of projectile	147.5_155
Weight of projectile	0.385±0.006 kg
Length of cartridge case	165_1 mm
Weight of cartridge case	0.321±0.010 kg
Propellant Charge Mass	0.122 kg
Burning time of tracer	not less than 10 sec

Practice HE-T projectile

30x165 mm

The 30x165 Round with Practice AP-T (Armor Piercing Tracer) Projectile is intended for practice firing. The projectile is inert and contains no explosive. The ammunition is safe in transport, storage and handling and ensures the reliable performance of the gun systems in all weather conditions. The automatic guns **2A42, 2A38, 2A72** and modifications are mounted on the following carriers:

- Infantry Fighting Vehicles **BMP-2, BMP-3, BMD-2, BMD-3, BTR-80A, BTR-82A** and their modifications
- Reconnaissance Vehicle "**RIS**"
- Air-Defence Complex "**Tunguska**"
- Attack Helicopters **Ka-50** and **Mi-28** and modifications

Basic Characteristics

Caliber	30x165 mm
Operational Temperature	
Range	-50 to +50°C
Shelf Life	15 years

Ballistic Data

Muzzle Velocity (max)	960 - 980 m/s
Probable Deviation	±5m/s
Average Pmax	±3600 kgf/cm ²

Elements Of Round

Projectile	Practice High Explosive Incendiary
Fuze	Dummy
Explosive filling	Sulfur Mixture
Propellant	6/7 P-5BPfl
Cartridge case	Steel
Primer	KV-3-1

Technical Data

Length of Round (max)	292.84 _{-0.345} mm
Weight of Round	0,858 kg
Length of projectile	148.5 _{-1.6} mm
Length of cartridge case	165 ₋₁ mm
Weight of Projectile	0.400±0.006 kg
Weight of cartridge case	0.321 ±0.010 kg
Propellant Charge Mass	0,123±0.003 kg

The 30x29 mm VUS-17 dummy training round is used for training of operators of the automatic grenade launchers. The ammunition is designed for use with the following grenade launchers:

- **AGS-17;**
- **AGS-30;**
- **M93;**
- **AG-17A;**
- **ARCUS-17 AGL**
- **AGK-30;**



Basic Characteristics

Caliber	30x29 mm
Maximum Firing Range	1700 m
Smoke visibility time at maximal distance, sec	10-15
Smoke color	red, orange
Operational Temperature Range	-50°C to +50°C
Shelf Life	10 years

Technical Data

Length of Grenade	132 mm
Weight of Round	0,35 kg

Ballistic Data

Muzzle velocity	185 m/s
Probable Deviation	2.5 <i>mis</i>
Average Pressure, max	1200 kgf/cm ² (122.5 MPa)

Elements Of Grenade

Fuze	VMG-M or UT M99 SP
Grenade Body	Steel
Propellant	NBpl 14-10
Primer	KVM-3

VUS-17 30x29 mm dummy training round

The 30x29 mm Training Practice Round VOG-17M IN designed to be used for training of the army units, ensuring simulation of real combat firing. The VOG-17M IN round with overall dimensions, ballistic and weight characteristics corresponds to VOG-17M rounds.

The ammunition is intended to be fired from Automatic Grenade Launchers of following types:

- AGK-30;
- AGS-17;
- AG-17A;
- AGS-30;
- ARCUS-17 AGL
- M93



Basic Characteristics

Caliber	30x29 mm
Maximum Firing Range	1700 m
Operational Temperature Range	-50°C to +50°C
Shelf Life	10 years

Technical Data

Length of Round	132 mm
Weight of Round	0,35 kg

Ballistic Data

Muzzle velocity	185 m/s
Probable Deviation	2.5 m/s
Average Pressure (max)	1200 kgf/cm ² (122.5 MPa)

Elements Of Grenade

Fuze	Ballistik plug
Explosive Filling	inert
Cartridge case	steel
Propellant	NBpl 14-10
Primer	KVM-3

VOG-171N 30x29 mm round with practice grenade

The 30x29 mm High Explosive Round VOG-17M provides effective action against enemy troops in open terrain or in light shelters at distance of up to 1700 m. The round is fitted with distance-armed, self-destruct fuze. The ammunition is designed for use with automatic grenade launchers:

- AGK-30;
- AGS-17;
- AG-17A;
- AGS-30;
- ARCUS-17 AGL
- M93

Basic Characteristics

Caliber	30x29 mm
Maximum Firing Range	1700 m
Radius of Defeat	not less than 6 m
Operational Temperature Range	-50°C to +50°C
Shelf Life	10 years

Technical Data

Length of Round (max)	132 mm
Weight of Round	0,35 kg
Weight of Explosive Charge	0,032 kg

Fuze

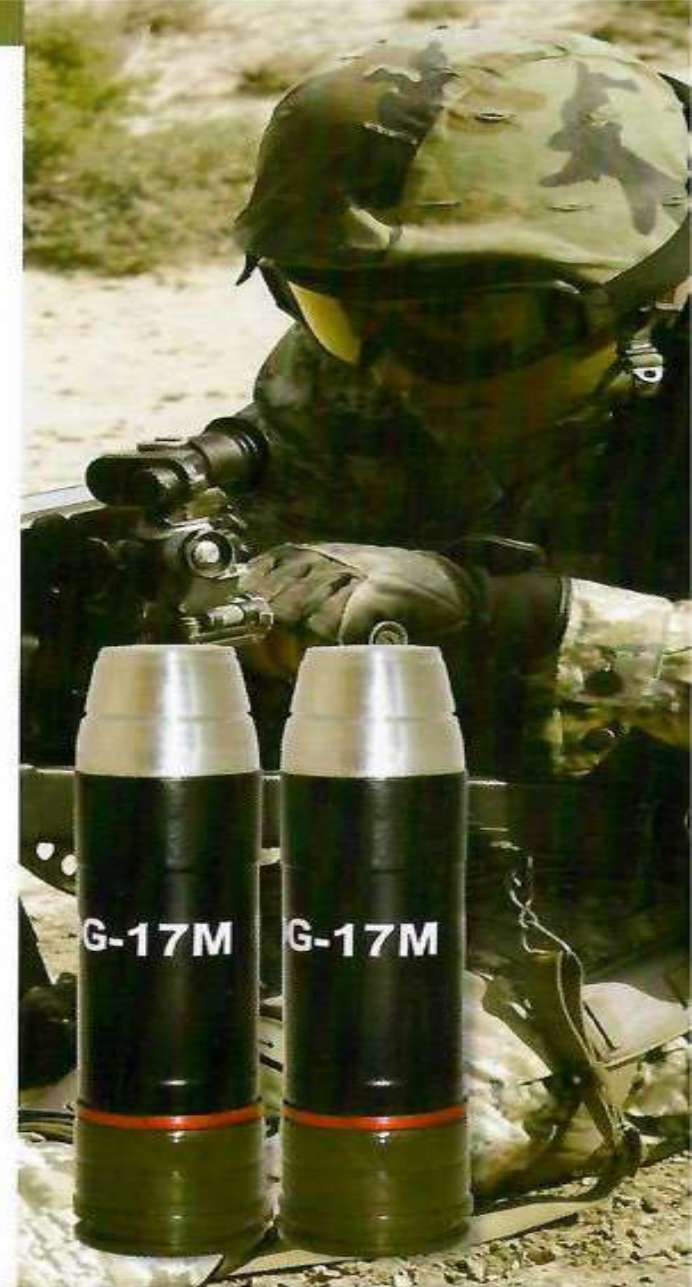
Type	Point Detonating, SQ action, Distance-Armed, Self-Destruct
Arming Distance	10 to 60 m
Self-destruction Time	28 to 36 sec

Ballistic Data

Muzzle velocity	185 m/s
Probable Deviation	2.5 m/s
Average Pressure, max	1200 kg/cm ² (122.5 MPa)

Elements Of Grenade

Projectile	High Explosive
Fuze	VMG-M or UT M99 SP
Explosive Filling	A-IX-1 (RDX)
Cartridge case	steel
Propellant	NBpl 14-10
Primer	KVM-3



VOG-17M round with fragmentation grenade

Metal 30x29 mm ammunition belt string is designed for automatic grenade launcher **AGS-17**, **AGS-30**, **AG-17A**, **M93**, **ARGUS-17 AGL** and **AGK-30**.

The belt consists of 10 interconnected "crab" type metal links. The belt are attached to each other through a cartridge.

The belts are fed with cartridges by using a loading machine (index 6YU13) or manually.

The life time of a cartridge belt ensures its no less than 16 times passing through the weapon's automatic system.

The belts are packed in boxes with capacity of 29 (30) grenades.



30x29 mm ammunition belt & detachable drum

The cartridge is designed for law enforcement applications for defusing protest marches and disturbances. It works by irritating mucous membranes in the eyes, nose and etc.

The product has a lachrymatory and irascible effect. The cartridge is fired from 37 mm Launcher type gun.

Caliber, mm	37/38
Cartridge case cap diameter, mm	43
Cartridge case bottom diameter, mm	39,5
Cartridge length, mm	156
Cartridge mass, g	182
Tear gas composition mass, g	60
Gas propagation time, sec	15+30
Effective range, m	80+130
Tear gas /smoke affected area, m ²	400
Safe operating distance, m	80
Shelf life, y	5



38P CSS tear gas smoke cartridge

The cartridge is designed for law enforcement applications for defusing protest marches and disturbances and has a less lethal effect.

The cartridge is fired from 37 mm Launcher type gun.



Caliber mm	37/38
Cartridge case cap diameter, mm	43
Cartridge case bottom diameter, mm	39,5
Cartridge length, mm	123
Shot mass, g	2,2
Cartridge mass, g	130
Number of shots, pcs	24
Effective range, m	20+30
Safe operating distance, m	20
Shelf life, y	5

38R NG shot rubber cartridge

37/38 mm



The 40 mm High Explosive Grenade VOG-25 provides effective action against enemy troops in open terrain or in light shelters at distance of up to 400 m. The grenade is self-contained type and is fitted with distance-armed, self-destruct fuze.

The round is safe in storage, handling and operation and ensures the reliable performance of the grenade launchers in all weather conditions.

Basic Characteristics

Maximum Firing Range	400 m
Effective bursting radius	not less than 6 m
Operational Temperature Range	-50°C to +50°C
Shelf Life	10 years

Technical Data

Length of Grenade (max)	102.6 mm
Weight of Grenade	0,25 kg
Weight of Explosive Charge	0,048 kg

Fuze

Type	Point Detonating, SQ action, Distance-Armed, Self-Destruct
Arming Distance	10 to 40 m or 15 to 50 m
Self-destruction Time	14 to 19 sec or 12 to 20 sec.

Ballistic Data

Muzzle velocity	76.5 m/s
Probable Deviation	1 m/s
Average Pressure, max	800 kgf/cm ²

Elements of Grenade

Fuze	VMG-K or UT MOO SP
Grenade Body	Steel
Explosive Filling	A-IX-1 (RDX)
Propellant	P-200
Primer	KVM-3

far under-barrel Grenade Launcher GP-25

HE grenade VOG25

40 mm

The 40 mm Round with Fragmentation Bouncing Grenade **VOG-25P** provides effective action against enemy troops in open terrain or in light shelters at distance of from 40 up to 400 m. The grenade is self-contained type and is fitted with distance-armed, self-destruct fuze. The round is safe in storage, handling and operation and ensures the reliable performance of the grenade launchers in all weather conditions.

Basic Characteristics

Maximum Firing Range	400 m
Effective bursting radius	not less than 6 m
Jump height	from 0.5 to 1.5 m
Operational Temperature Range	-50°C to +50°C
Shelf Life	10 years

Technical Data

Length of Round (max)	122 mm
Weight of Round	0,278 kg
Weight of the Explosive Charge	0,037 kg

Fuze

Type	Point Detonating, SQ action, Distance-Armed, Self-Destruct
Arming Distance	10 to 40 m
Self-destruction Time	14 to 19 sec

Ballistic Data

Muzzle velocity	75 m/s
Probable Deviation	1 m/s
Average Pressure, max	78.4 MPa

Elements Of Grenade

Fuze	VMG-P or FSD1
Grenade Body	Steel
Explosive Filling	A-IX-1 (RDX)
Propellant	P-200
Primer	KVM-3



40 mm Bouncing Air Burst grenade VOG25P

M99 with HE round is intended to defeat enemy troops and vehicles at distance up to 400 m.

Specifications

Caliber (mm)	40
Round mass (g)	245
Grenade mass (g)	192
Explosive mass (g)	48
Round length (mm)	max 104.5
Muzzle velocity (m/s)	78
Fuze arming distance (m)	14-27
Precision on vertical target at the distance of 100 m (m)	$v_s:0.25$ $V_s:0.35$
Max range (m)	400
Effective bursting radius	5
Operating temperature (°C)	-42 - +63
Weapon compatibility	M203, M79, RBG 40 mm/6M11, MGL MK1, HK69A1, F2000 or other similar weapons



HE round M99

M99 with HEDP dual purpose round is intended to penetrate 60 mm steel armor at O angle of obliquity and inflict personnel casualties in the target area.

Specifications

Caliber (mm)	40
Round mass (g)	252
Grenade mass (g)	200
Explosive mass (g)	42
Round length (mm) max	106,5
Muzzle velocity (m/s)	78
Fuze arming distance (m)	8 + 30
Precision on vertical target, at the distance of 100 m (m):	Vp s; 0,25, Vv s; 0,35
Max range (m)	400
Penetration (mm of steel plate)	60
Effective bursting radius (m)	≥ 5
Operating temperature (°C):	-42 ... +63
Weapon compability	RBG 40 mm/6M 11; MSGL; M79; MK1; M203; HK69A1; F2000 or other similar weapons



40x46 mm

HEDP round M99

The 40x46 mm SMOKE Round M99 is intended to be fired at distance up to 400 m in order to place a smoke-screen or to mark targets.

Specifications

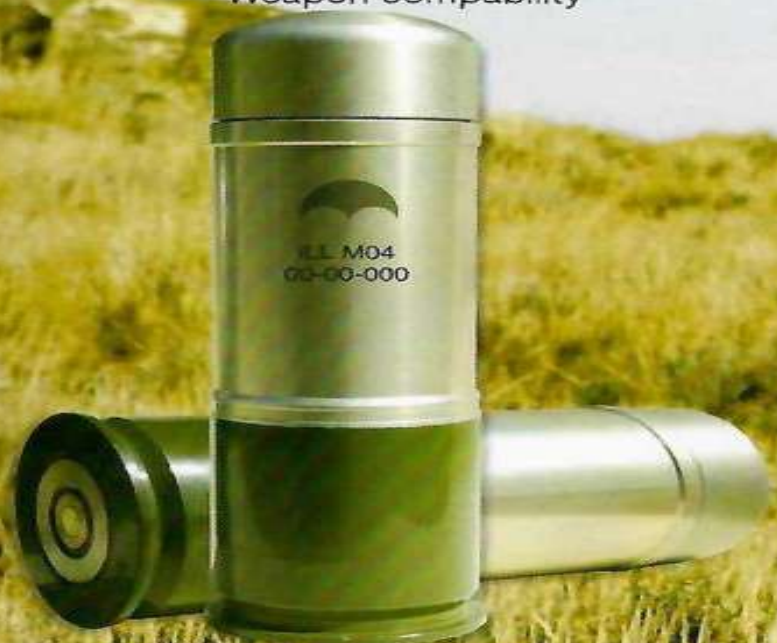
Caliber (mm)	40
Round mass (g)	236
Grenade mass (g)	186
Round length (mm)	106
Delay time (s)	2-4
Smoke time (s)	30
Muzzle velocity (m/s)	76
Firing range	50-400
Smoke type	white
Weapon compatibility	M203, M79, RBG 40 mm/6M11, MGL MK1, HK69A1, F2000 or other similar weapons



The illumination parachute round is intended for illumination and signalling means.

Specifications

Caliber (mm)	40 mm
Round mass (g)	250
Grenade mass (g)	200
Delay time (s)	2.5 ... 3.5
Burning time of star (s)	20
Light intensity of star (cd)	80 000
Middle wave length (mm)	587±5
Height fireci at 85° (m)	182±30
Operating temperature (°C):	-30 ... +50
Weapon compability	RBG 40 mm/6M 11; MSGL; M79; M203; HK69A1; F2000 or other similar weapons



M04 illuminating round with parachute

F-1 Fragmentation Hand Grenade

Designation

The F-1 is an anti-personnel fragmentation defensive grenade designed for neutralizing enemy personnel at a certain distance.

Specifications

Weight of grenade, g	600
Weight of explosive charge, g	60
Throw distance, m	50-60
Radius of splinter damage, m	30-40
Blast wave (70-80kPa), m, min	0,5
Safe radius, m	280
Fuze delay, s	2,7-4,2
Number of splinters, pcs, min	300



F-1 Fragmentation Hand Grenade

RGDS hand grenade

RGD-5 Hand grenade is anti-personnel fragmentation grenade of offensive and defensive type with effective range effect at a short distance from the detonation site.

Specifications

Weight of grenade, kg	0.320
Weight of explosive charge, kg	0.116
Explosive filling	TNT
Average throwing distance, m	40-50
Fuze delay, s	3,2-4,2
Safe radius, m	25

URQN training simulation hand grenade

The grenade is intended for training soldiers in the methods of handling and throwing of hand grenades and the simulated sound and smoke effect of live hand grenades

Specifications

Actuation time of pyrotechnics, sec	3,2 - 4,2
Mass of a complete grenade, g	75 ± 1
Mass of a simulation component, g	26,5 ± 1
Mass of black powder g	2,4 ± 1



Offensive/defensive grenade is used in close combat and produces casualties by the high velocity projection of fragments after detonation. Defensive hand grenade RGO has higher casualty effect than RGN.

Diameter (caliber)	RGN / RGO 60mm
Weight	0,31 / 0,53 kg
Explosive Filling	A-IX-1 (RDX)
Weight of Explosive Charge	0,114 / 0,092 kg
Throwing distance	40-50 / 35-45 m
Effective area	96 / 286 m ²
Delay arming time	1,0-1,8s
Primer activation time after throwing "	3,2 - 4,2 s



RGN/RGO Offensive/Defensive Anti-Personel Hand Grenade



5.45x39 mm pistol blank cartridge



5.45 mm blank cartridge



5.45 mm cartridge with a tracer bullet



5.45 mm cartridge with a tracer bullet



7.62 mm rifle blank cartridge



7.62 mm cartridge with a tracer bullet



7.62 mm cartridge low velocity bullet



7.62 mm blank cartridge



7.62 mm cartridge with steel core bullet



7.62x54 mm cartridge with a T-46 tracer bullet



7,62x54 mm cartridge



9x18 mm pistol rubber bullet



9x18 mm cartridge with steel core bullet



9x18 mm pistol blank cartridge



9x19 mm pistol Parabellum cartridge



12.7x108 mm cartridge with the BZT-44 armor-piercing incendiary / tracer bullet



blank cartridge 12.7x108 mm



blank cartridge 14.5x114 mm



14.5x114 mm cartridge



38R NG shot rubber cartridge



38P CSS tear gas smoke cartridge

The **60 mm High-Explosive long range Mortar Bomb** is intended for engagement of troops in open or in light shelters. The ammunition is designed for use with the 60 mm smooth-bore long range mortars meeting NATO standards.

The ammunition is safe in storage and handling and ensures the reliable performance of the mortar system in all weather conditions.

The **60 mm Practice long range Mortar Bomb** is intended for training. The ammunition is designed for use with the 60 mm smooth-bore long range mortars meeting NATO standards. The ammunition is safe in storage and handling and ensures the reliable performance of the mortar system in all weather conditions.

Basic Characteristics

Caliber	60 mm
Maximum range	4000 m
Operating Temperature Range	-50°C to +50°C
Shelf Life	10 years

Technical Data

Length of Mortar Bomb (fuzed)	351 mm
Weight of Mortar Bomb (fuzed)	1.84 kg
Weight of Explosive Charge	0.3 kg

Elements of Mortar Bomb

Fuze	M-6H or AZ111A2 or Dummy*
Body	Cast iron
Explosive Filling	TNT
Number of Charges	1+6 Increment charges

Ballistic Data

Muzzle Velocity (max)	172±7 m/s
Maximum pressure	611 kg/cm ²

* for practice mortar bomb



60 mm High Explosive Long Range/Practice

LR mortar bombs

60 mm



practice

The 60 mm High-Explosive Mortar Bomb is intended for engagement of troops in open or in light shelters. The ammunition is designed for use with the 60 mm smooth-bore mortars meeting NATO standards.

The 60 mm Practice Mortar Bomb is intended for training. The ammunition is designed for use with the 60 mm smooth-bore mortars meeting NATO standards, including:

- **M2**
- **M19**
- **M224**
- **Hirtenberger "Commando"**
- **C-08 and C-576**
- **20N6M**

The ammunition is safe in storage and handling and ensures the reliable performance of the mortar system in all weather conditions.

Basic Characteristics

Caliber	60 mm
Maximum range	3200 m
Operating	
Temperature Range	-50°C to +50°C
Shelf Life	10 years

Technical Data

Length of Mortar Bomb (fuzed)	300 mm
Weight of Mortar Bomb (fuzed)	1.6 kg
Weight of Explosive Charge	0.2 kg

Elements of Mortar Bomb

Fuze	M-6H or AZ111A2 / Dummy*
Body	Cast iron
Explosive Filling	TNT
Number of Charges	1+4 Increment charges

Ballistic Data

Muzzle Velocity (max)	195±5 <i>mis</i>
Maximum pressure	441kg/cm ²

* for practice mortar bomb

The 82 mm High-Explosive Mortar Bomb is intended to engage troops, shelters and light-armoured targets. The ammunition is intended for use with 81 mm/82 mm smooth-bore mortars, including:

The ammunition is safe in storage and handling and ensures the reliable performance of the mortar system in all weather conditions.

Basic Characteristics

Caliber	81 mm/82 mm
Maximum range:	
with increment charges	3 000 m
with long range charge	4 500 m
Operating Temperature Range	-50 °C to +50 °C
Shelf Life	10 years

Ballistic Data

Muzzle Velocity (max)	211 m/s
Maximum pressure	450 kgf/cm ²

Technical Data

Length of Mortar Bomb (fuzed)	332.5 mm
Weight of Mortar Bomb (fuzed)	3.2±0.09 kg
Weight of Explosive Charge	0.454 kg

Elements Of Mortar Bomb

Fuze	M-6
Body	Cast iron
Explosive Filling	TNT or TD-42
Number of Charges	1+3 increment or long range charges



81 mm / 82 mm

82 mm High Explosive



The **82 mm Practice Mortar Bomb** is intended for training. The ammunition is designed for use with 81 mm/82 mm smooth-bore mortars, including: The ammunition is safe in storage and handling and ensures the reliable performance of the mortar system in all weather conditions.

Basic Characteristics

Caliber	81 mm/82 mm
Maximum range with increment charges	3 000m
with long range charge	4 500 m
Operating Temperature Range	- 50°C to +50°C
Shelf Life	10years

Ballistic Data

Muzzle Velocity (max)	211 m/s
Maximum pressure	450kgf/cm ²

Technical Data

Length of Mortar Bomb	300mm
Weight of Mortar Bomb	3.2±0,009 kg

Elements Of Mortar Bomb

Fuze	Dummy
Body	Cast iron
Number of Charges	1+3 increment or long range charges

practice mortar bombs

81 mm/82mm

M-6 is a mechanical, nose, point-detonating fuze with super-quick action. The fuze completes 82 mm High-Explosive and Smoke mortar bombs. The fuze is safe in storage, handling and operation and ensures the safe and reliable function of the ammunition in all weather conditions.

Basic Characteristics

Action:	PD; Super Quick
Arming:	by set-back forces
Muzzle Safety Distance:	not less than 10m
Temperature Range for Firing:	-50 to +50 °C
Temperature Range for Storage:	-50 to +50 °C
Shelf Life:	15 years

Technical Data

Length of Fuze (max):	83.39 mm
External Diameter (max):	40.0 mm
Weight of Fuze:	168 g
Type of Booster:	Tetryl
Weight of Booster:	6 g
Thread Size:	Spec. 36.18x10 tpi



fuze for mortar ammunition

M-6

The 120 mm High-Explosive Mortar Bomb is intended to engage troops, shelters and light-armoured targets. The ammunition is designed for use with 120 mm smoothbore mortars, including:

The ammunition is safe in storage and handling and ensures the reliable performance of the mortar system in all weather conditions.

Basic Characteristics

Caliber	120 mm
Maximum range	
with increment charges	5 800 m
with long range charge	7100 m
Operating	
Temperature Range	-50°C to +50°C
Shelf Life	10 years

Technical Data

Length of Mortar	673 mm
Bomb (fuzed)	
Weight of Mortar	
Bomb (fuzed)	16.07±0.050 kg
Weight of Explosive	
Charge	1.36 kg

Elements Of Mortar Bomb

Fuze	M-12
Body	Cast iron
Explosive Filling	TD-50
Number of Charges	1+6 Increment or long range charges

Ballistic Data

Muzzle Velocity (max)	272 m/s
Max. Pressure	1030/1300 kgf/cm ²



120 mm high explosive mortar bombs



The 120 mm Practice Mortar Bomb is intended for training. The ammunition is designed for use with 120 mm smoothbore mortars, including:
The ammunition is safe in storage and handling and ensures the reliable performance of the mortar system in all weather conditions.

Basic Characteristics

Caliber	
Maximum range with increment charges	5 800 m
with long range charge	7 100 m
Operating Temperature Range	-50°C to +50°C
Shelf Life	10 years

Technical Data

Length of Mortar Bomb (fuzed)	673mm
Weight of Mortar Bomb	16.07±0.050 kg

Elements Of Mortar Bomb

Fuze	Dummy
Body	Cast iron
Number of Charges	1+6 Increment or long range charges

Ballistic Data

Muzzle Velocity (max)	272 m/s
Max Pressure	1030/1300 kgf/cm ²

practice mortar bombs

120 mm

The PG-7VLT anti-tank grenade has great penetration and destructive capacity which allows engaging all types of heavy and light armored vehicles, including ERA reinforced concrete, and brick constructions.

Round Characteristics

Grenade launcher caliber, mm	40
HEAT warhead caliber, mm	93
Precursor warhead caliber, mm	50
Round weight, kg	3,290
Grenade weight, kg	2,900
Propellant charge weight, kg	0,390
Muzzle velocity, m/s	90
Direct fire range, m	220
Direct sighting range, m	250
Armor penetration after ERA, mm	>500
Safe operational temperature range, °C	-40 ... 50
Firing rate, shots/min	4 ... 6

Weapon System

T8G-7V2, RPG-7V portable antitank grenade launchers

Packing

Dimension, mm	1136x474x307
6 rounds in wooden case	
Gross weight, kg	50



40 mm anti-tank grenade

PG-7VLT with PG 7LT

it is designed for destroying tanks and self-propelled guns and other armored vehicles. It can also be used against enemy troops in field shelters and different fortifications. It is equipped with the VP-22 fuze.

Round Characteristics

Grenade launcher caliber, mm	40
Warhead caliber, mm	93
Round weight, kg	2,600
Grenade weight, kg	2,200
Propellant charge weight, kg	0,390
Muzzle velocity, m/s	112
Direct fire range, m	250
Direct sighting range, m	300
Armor penetration, mm	500
Safe operational temperature range, °C	-40 ... 50
Firing rate, shots/min	4 ... 6

Weapon System

T8G-7V2, RPG-7V portable antitank grenade launchers

Packing

Dimension, mm	899x498x294
6 rounds in wooden case	
Gross weight, kg	38



AT-7V round with AT-7



40 mm anti-tank grenade



Round AT-7V iN is intended for training.

The inert grenades are designed for training.

Round Characteristics

<i>Grenade launcher caliber, mm</i>	40
<i>Training warhead caliber, mm</i>	93
<i>Round weight, kg</i>	2,600
<i>Grenade weight, kg</i>	2,200
<i>Propellant charge weight, kg</i>	0,390
<i>Muzzle velocity, mis</i>	112
<i>Safe operational temperature range, °C</i>	-40 ... +50
<i>Firing rate, shots/min</i>	4...6

Weapon System

TaG-7V2, RPG-7V portable antitank grenade launchers

Packing

<i>Dimension, mm</i>	899x498x294
<i>6 rounds in wooden case</i>	
<i>Gross weight, kg</i>	38

AT-7V IN round with AT-7 IN

practice grenade

The round GG-7A is designed to inflict personnel casualties and weapon positions in the open, in trenches, in field shelters, in light-armored vehicles, and non armored materiel by direct fire on the embrasures of field fortification and within urban areas.

Weapon Systems

40 mm **TdQ-7V2** and **RPG-7V2** Anti-Tank Grenade Launchers . in combat operations, Rounds **GG-7A** are transported in the bag which is part of the Launcher's individual set of **SPTA** (spare parts, tools, accessories).

Round GG-7A

Maximum range	700m
Muzzle velocity at 15°C	150±10m/s
Weight	2.1±0.030kg
Operating temperature range	-40° to +50°C

Grenade GG-7

Caliber	40mm
Length (fuzed)	425mm
Weight	1.710±0.025kg
Lethal radius	over 22m
Bursting charge, type	A-IX- 1(RDX)
Bursting charge weight	0,295±0.010 kg
Point - detonation fuze with super-quick and inertia (non-ricochet) function independent of impact angle	



round GG-7A with fragmentation grenade

Round GG-7A iN is intended for training.

Weapon Systems

40mm TdQ-7V2 and RPG-7V2 Anti-Tank Grenade Launchers.

Rounds B are transported in the bag which is part of the Launcher's individual set of **SPTA** (spare parts, tools, accessories).

Round GG-7A iN

Maximum range	700m
Muzzle velocity at 15°C	150±10m/s
Weight	2.1±0.030kg
Operating temperature range	-40° to +50°C

Grenade GG-71N

Caliber	40mm
Length	425mm
Weight	1,710±0.025kg
Filling	INERT



round GG-7A iN with practice grenade

iNAM

9x19 mm semiautomatic pistol

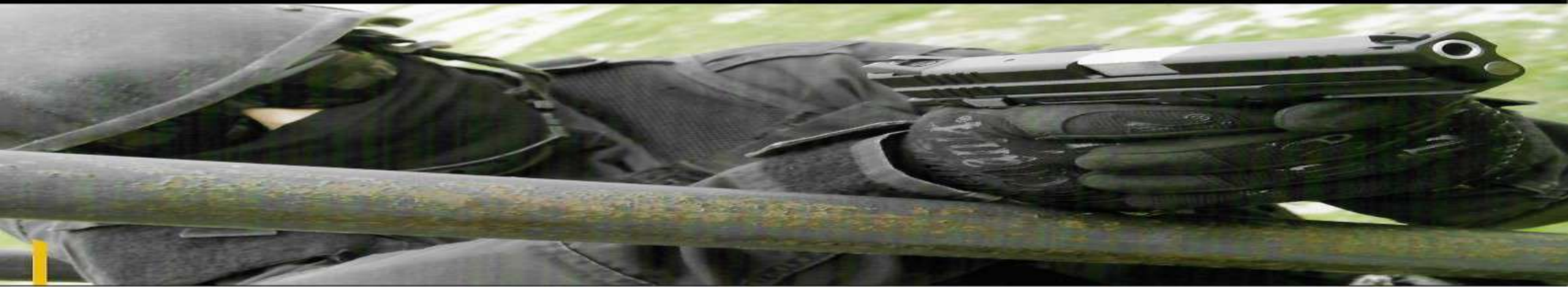
Caliber, mm	9x19
Sighting range, m	50
Magazine capacity, ctg	15, 17, 20
Safety System	Safety lever from both sides, blocks a firing pin & slide and decocks the hammer
Action	Semiautomatic, short recoil
Sights	Front & non-adjustable

Muzzle velocity, m/s	340±10
Mass with empty magazine, g	860
Overall dimensions:	
Length, mm	191
Height, mm	140
Width, mm	33
Barrel length, mm	110
Operating temperature range, °C	±50 °C

ZAFARP

Caliber, mm	9x19
Sighting range, m	50
Magazine capacity, ctg	15, 17, 20
Safety System	Safety lever from both sides , blocks a firing pin & slide and decocks the hammer
Action	Semiautomatic, short recoil
Sights	Front & adjustable

Muzzle velocity, <i>mis</i>	340±10
Mass with empty magazine, g	835
Overall dimensions:	
Length, mm	183
Height, mm	140
Width, mm	33
Barrel length, mm	102
Operating temperature range, °C	±50 °C



assault rifle

AK74M

The **AK74M** Kalashnikov assault rifles are chambered for **5.45x39** mm round and have folding buttstocks. Forearm, magazine, buttstock and pistol grip are made of high strength plastic. Protective coatings ensure excellent corrosion resistance of metal parts. There is a dovetail side rail for optical and night sights. The design of the **AK74M** makes it possible to attach an underbarrel grenade launcher or a knife-bayonet. Muzzle brake provides for cyclic fire accuracy and further reduces muzzle climb and burst recoil.



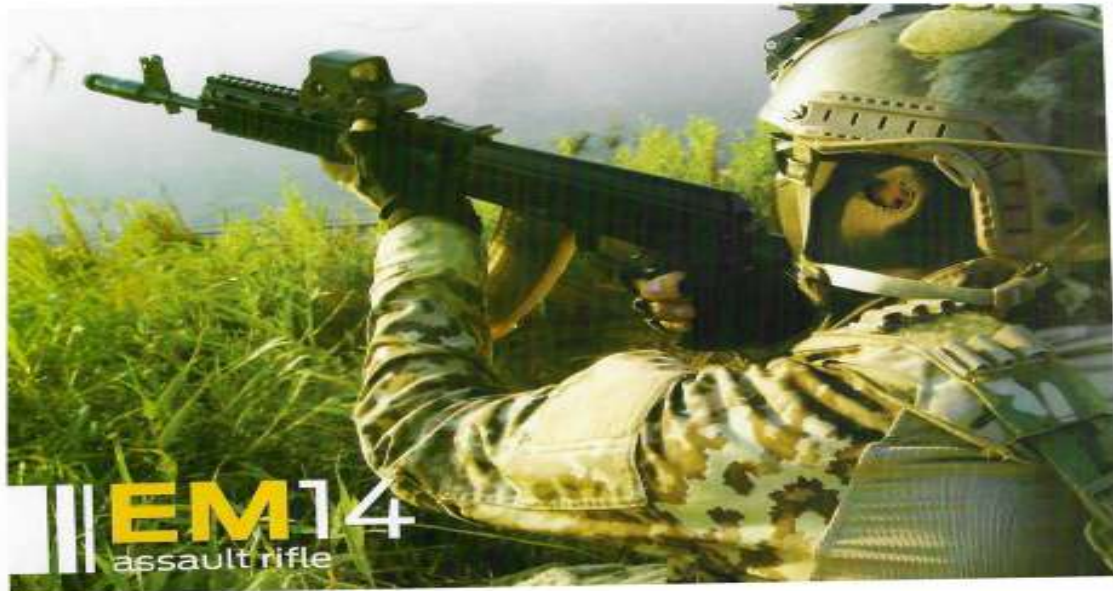
AK74M assault rifle

Specifications

Caliber, mm	5.45x39
Overall length	943 mm
Compact length	705 mm
Barrel length	415 mm
Weight, kg	
rifle with loaded magazine	3.9
rifle with empty magazine	3.6
Muzzle velocity	900 mis
Combat fire rate	100 rounds/min
Semiautomatic effective rate of fire	40 rounds/min
Used csrtridges, mm	5.45x39
Magazine capacity, rounds	30
Rate of fire	650 rounds/min
Sighting range, m	1000
Operating mode	Safe, Full Auto

5.56x45 mm EM 14 assault rifle

The EM 14 Kalashnikov assault rifles are chambered for 5.56x45 mm round and have folding buttstocks. Forearm, magazine, buttstock and pistol grip are made of high strength plastic. Protective coatings ensure excellent corrosion resistance of metal parts. There is a dove-tail side rail for optical and night sights. The design of the EM 14 makes it possible to attach an underbarrel grenade launcher or a knife-bayonet. Muzzle brake provides for cyclic fire accuracy and further reduces muzzle climb and burst recoil.



Specifications

Caliber, mm	5.56x45mm
Length full	943mm
Weight	3.6kg
Length compact	705mm
Rate of fire	650rounds/min
Combat fire single	40rounds/min
Sight reach	1000m
Shooting mode	Safe, Full Auto
Magazine capacity	30m
Weight with bullets	4
Barrel length	415mm
Initial bullet speed	910 <i>mis</i>
Combat fire rate	100rounds/min
Point blank range	450m
Used cartridges	5.56x45mm

7.62AZ assault rifle

The **AZ 7.62** Kalashnikov assault rifles are chambered for 7.62x39 mm round and have folding buttstocks. Forearm, magazine, buttstock and pistol grip are made of high strength plastic. Protective coatings ensure excellent corrosion resistance of metal parts. There is a dove-tail side rail for optical and night sights. The design of the **AZ 7.62** makes it possible to attach an underbarrel grenade launcher or a knife-bayonet. Muzzle brake provides for cyclic fire accuracy and further reduces muzzle climb and burst recoil.

Specifications

Overall length	935 mm
Compact length	735 mm
Barrel length	415 mm
Weight	3.6 kg
Muzzle velocity	715 m/s
Combat fire rate	100 rounds/min
Point blank range	350
Used cartridges	7.62x39mm
Magazine capacity	30
Weight with magazine	4.1 kg
Sighting radius	377mm
Rate of fire	600 rounds/min
Semiautomatic effective rate of fire	40 rounds/min
Sight reach	1000 m
Operating mode	Safe, Full Auto



assault rifle **7.62AZ**

The 7,62x54 mm HP-7,62 machine gun is powerful weapon for using against enemy troops, firing points and light air targets. The lightweight advanced gun is very reliable under extreme environmental conditions. The weapon uses 7.62x54R cartridges loaded in a 100-rounds belt from a detachable metal box.

- HP-7,62 can be fired from a variety of mounts, special helicopter airborne mount, vehicle or sea crafts mounts
- The HP-7,62 is equipped with picatinny rails for optical devices
- The HP-7,62 bipod is extremely robust and durable
- The HP-7,62 has a gas regulator to set the firing rate
- The HP-7,62 can be quickly dismantled on the field for maintenance

Specifications

Ammunition - 7,62x54R mm

Operation - "long-stroke gas operation"

Firing mode - continuous

Rate of fire - 650 rounds/min

Effective rate of fire - 250 rounds/min

Muzzle velocity - 820 m/s

Effective firing range - 1000 m

Ammunition box capacity - 100 rounds

Barrel length - 517 mm

Overall length:

Buttstock folded - 980 mm

Buttstock open - 1080 mm

Weight without ammunition box - 8,6 kg

System life - 25000 rounds

62



HP 7.62 light machine gun

UP7.62

machinegun

The Machine Gun operates in automatic fire mode. it fires 7.62x54 mm cartridges with ordinary bullets, armour-piercing incendiary and tracer bullets. A 100 and 200 round link metal belt, held in a metal box feed cartridges in.

Option: Rail for sighting devices.



Caliber	7.62
Cartridge	7.62x54R
Firing mode	Automatic
Rate of fire, rounds/min	650
Effective rate of fire, rounds/min	250
Muzzle velocity, m/s	825
Maximum effective firing range, m	3800
Sighting range, m	1500
Ammunition box capacity, rounds	100, 200
Barrel length, mm	605
Sight radius, mm	663
Overall length, mm	1160
Weight without ammunition box, kg	8.7
Weight of loaded ammunition box	
- with loaded 100 round metal belt, kg	3.9
- with loaded 200 round metal belt, kg	6.5
System life, rounds	25 000
Principle of operation	Gas operated
Cartridges	7.62x54 mm Ordinary bullets, Armour Piercing-Incendiary (API) and Tracer bullets.

YALGUZAG

sniper rifle system

System: Bolt action rifle, manually operated

Caliber: .308 Win (7.62x51 NATO)

Rifling: 4 grooves, right hand twist 1:11"

Barrel Length: 660 mm

Effective Range: 1000 m

Accuracy: < 15 mm (standard deviation at 100 m)

Overall Length:

Buttstock folded 906 mm

Buttstock open 1139 mm (+ 75 mm buttstock extended)

Width (w/o bolt) Buttstock folded 85 mm

Buttstock open 48 mm

Sight radius: 727 mm

Weight (weapon only): 7.01 kg

Magazine Capacity: 10 rds, detachable

Trigger Pull: 1.5 kg - 2.5 kg (fully adjustable w/o disassembly)

Bolt configuration: 3 locking lugs, 60° opening angle

Operational Condition Data of Rifle

Shock resistance: 500 shocks of 15 g / 6 ms

Vibration resistance: 10 Hz to 500 Hz at 1.04 g for 2 h, at 4.8 g for 30 min

Drop resistance: 1.5 m without accidental discharge

Operational temperature: - 30 °C / +65 °C

Storage temperature: - 30 °C / +65 °C (and 95% rel. humidity) for 72 h

Barrel lifetime: > 6000 rounds

Permissible Maximum Pressure: 4773 bar



TP

tank machine gun

The 7.62x54 mm gas operated coaxial machine gun is powerful automatic weapon, designed to be mounted on battle tanks and fighting armored vehicles. The system automation operates on the driving forces of propellant gases diverted through a vent in the barrel.

Caliber, mm	7.62
Cartridge	7.62x54R
Fire mode	Automatic
Rate of fire, rounds/min	700 - 800
Practical rate, rounds/min	250 max
Muzzle velocity, m/s	825
Maximum effective firing range, m	3800
Sighting range, m	1500 - 2200
Ammunition box capacity, rounds	250, 1000

Barrel length, mm	722
Overall length, mm	1098
Weight without ammunition box, kg	10.5
Weight of loaded ammunition box with loaded 250 round metal belt, kg	9.4
System life, rounds	25 000
Principle of function	Gas operated
Cartridges	7.62x54 mm Ordinary bullets, Armour Piercing-Incendiary (API) and Tracer bullets.



Yirtiji sniper rifle system

Intended to engage appearing, moving, camouflaged and open single targets. The rifle is a gas-operated weapon. The barrel is locked by a rotating bolt. Cartridges are fed from spring-loaded box magazine.

The gas regulator changes the recoil speed of the moving parts in case of their insufficient recoil thereby increasing the reliability. The rifle is fitted with a sniper optical sight. A sight allows the operation of the weapon at night and twilight. For the best result, the use of special-purpose sniper cartridges is recommended. Standard cartridges can also be used.

Operation	semi-automatic
Caliber	7,62x54R mm
Muzzle velocity	830 m/s
Barrel length	620 mm
Effective range	1000 m
Overall length:	
buttstock folded	951 mm
buttstock open	1185 mm
Weight, kg	6,0 kg
Magazine capacity	10 rds, detachable
Operational temperature	±50 °C





IST-12.7

anti-materiel rifle

Feeding 7 round magazine

Bolt Semi-automatic with 3 locking lugs

Cartridges 12,7x108 mm Armour Piercing-Incendiary(API), Armour Piercing-Incendiary-Tracer (API-1) and HE Incendiary bullets.

Armour-piercing action (penetration probability 90%) range 100m

Perpendicular armour plate 20 mm with B-32 (API)

Mountings Adjustable, bipod and adjustable mono-pod at rear

Caliber, mm 12,7 mm

Cartridge 12,7x108 mm

Operation Gas operated

Weight, Gun and Scope, dismantled 16 kg

Muzzle velocity 845 m/s

Sighting range 2 000m

Overall length 1 800 mm

Barrel length 1 000 mm

Number of riftings 8 p/c

Rifling pitch 381 mm

Scope 6-24x56 Telescopic Sight with dioptric adjustment and reticle illuminating system

- 14,5 mm calibre offers enhanced target effect against materiel targets
- Unique recoil management system is extremely user friendly
- Magazine-fed, semi-automatic operation, offers rapid follow-up shots with simplicity and reliability
- Precision, man-portable, long range anti-materiel weapon
- Provides for efficient, reliable & safe operation & servicing in the following environment:
 - Ambient temperature range, from -50°C to +50°C
 - Relative air humidity: 93-97% at +25°C
 - At rain, snow, sand and dust impact
 - When transported the rifle is dismounted into two separate parts, carried by the crew in packs

14.5 mm anti-materiel rifle characteristics ensure its efficient use against:

- thin-skinned vehicles, armored personnel carriers, infantry fighting vehicles (IFV), parked aircraft
- igniting ammunition (mines) from the safe distance;
- command, control, communication & surveillance systems, space communications means, artillery and rocket systems, tank exterior equipment etc;
- enemy manpower both exposed, disguised under thin field cover.

Caliber, mm	14,5 mm
Effective firing range	
With optical sight	1600 m
With mechanical sight	800 m
Firing rate	8-10 rounds/min
Muzzle velocity, m/s	950±40 m/s
Overall length, mm	1900 mm
Weight, kg	21±5%
Magazine capacity, rds	4
Cartridges	14.5x114 Armour Piercing-Incendiary(API), Armour Piercing-Incendiary-Tracer (API-T), Incendiary and HE Incendiary bullets.
Mountings	Adjustable bipod and adjustable monopod at rear

NST14.5

anti-materiel rifle



NST14.5

anti-materiel rifle

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- Unique recoil management system is extremely user friendly
- Magazine-fed, semi-automatic operation, offers rapid follow-up shots with simplicity and reliability
- Precision, man-portable, long range anti-materiel weapon
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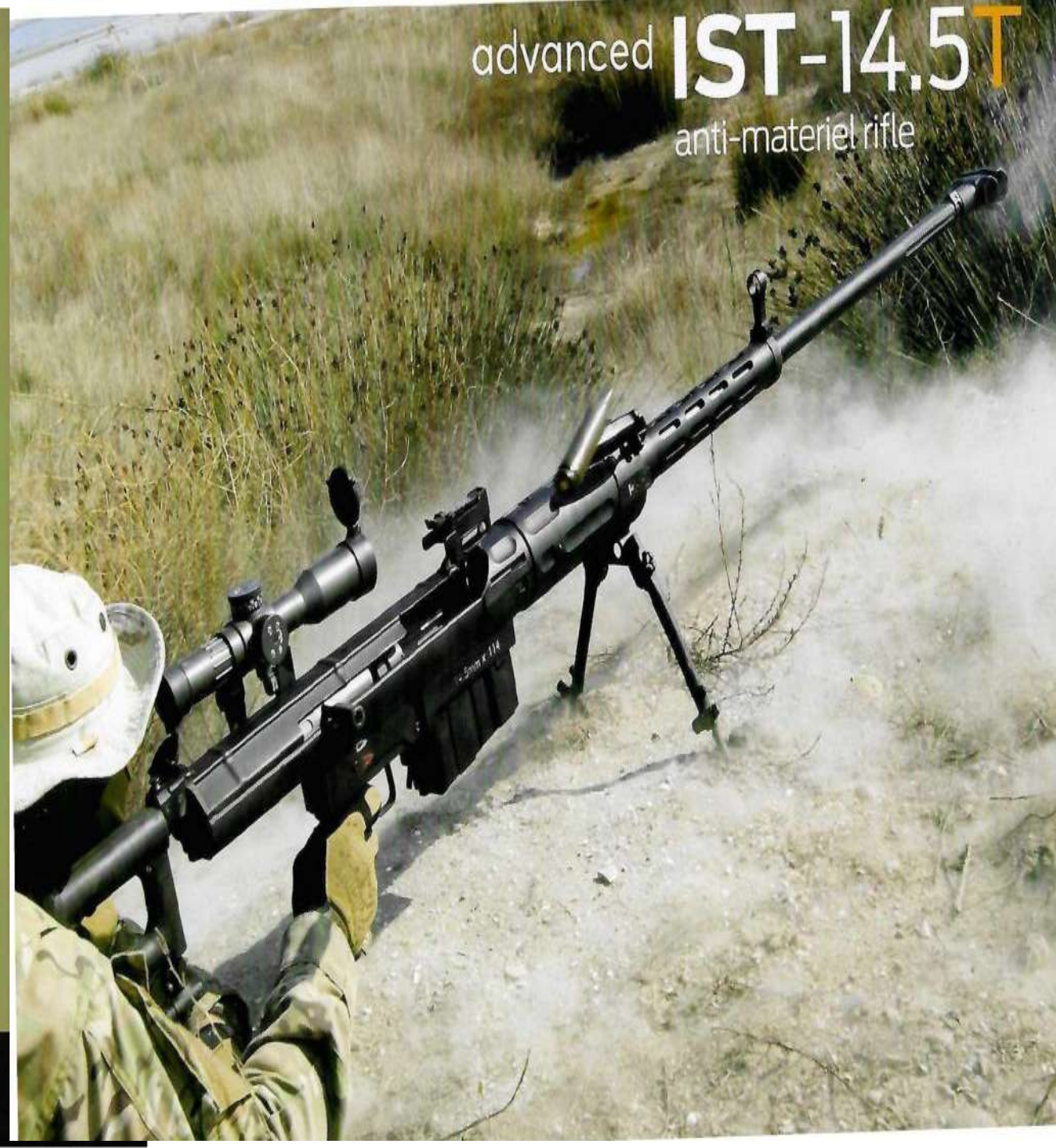
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- command, control, communication & surveillance systems, space communications means, artillery and rocket systems, tank exterior equipment etc;
- enemy manpower both exposed, disguised under thin field cover.

The efficient recoil management system reduces the high velocity recoil making the system very user-friendly without tactical restrictions.

advanced **IST-14.5T** anti-materiel rifle

advanced **IST-14.5T**
anti-materiel rifle



AGK30

automatic grenade launcher

Automatic grenade launcher **AGK-30** is an infantry weapon intended for annihilation of covered and uncovered live forces at distances up to 2 100 m. Reliability of its functioning in various climates and terrains was confirmed by strict testing methods, in accordance with military standards.

AGK-30 can only fire bursts, but the rate of fire can be from 50 to 400 grenades per minute.

The interior of the barrel is chrome plated, which provides long service life and precision of the weapon.

The weapon is fed from a belt with the capacity of 29 grenades, placed in the detachable ammunition box. The launcher can fire grenades with anti-personnel and training projectiles.

The design of the tripod enables quick change of combat position. Depending on tactical requirements and at the customer's request, the automatic grenade launcher can be mounted to various types of combat vehicles.

Optionally, at customer's request, the set can include:

- Belt filler; quantity as per customer's request or manufacturer's recommendation: 30x29 mm loading machine per 3 launchers
- Rectification sight; quantity as per customer's request or manufacturer's recommendation: 1 boresighting tube per 3 launchers

Complete set

- Automatic grenade launcher AGK-30
- Tripod
- Aiming device NSBG-1
- 6 ammunition belts
- 3 ammunition boxes
- Tripod sling
- Carrying bag
- Spare parts
- Tools and accessories
- Handling and maintenance manuals

Caliber (mm)	30x29
Capacity of the ammunition box (rounds)	29
Barrel length (mm)	300
Total length (mm)	1.380
Weight (kg)	24
Weight of tripod (kg)	8.5
Rate of fire (rds/min)	50-400
Maximum effective range (m)	1700



The 40x46mm RBG 40mm/6M1 is a lightweight semi-automatic shoulder fired grenade launcher. It fires the widely used 40mm low velocity non-lethal and lethal grenades.

The weapon is based on the revolver principle with a spring-driven gas operated cylinder. The 40mm Grenade Launcher is fitted with an occluded eye sight which means that the weapon is fired with both eyes open. The sight is operational in poor light conditions as long as the target can be seen. The sight is calibrated in 25mm increments from zero to 375 metres.

Calibre	40x46mm
Effective range	375m
Maximum range	400m
Barrel length	390mm
Chamber length	140mm
Muzzle velocity	76m/s
Basic weight	
without ammunition and sight	5.9kg
Overall length with folded butt	725mm
Overall length with open butt	880mm
Operation	semi-automatic, single shot sem



grenade launcher type **RBG** 40 mm 6M11



TAG- 7V2 is a powerful, reliable, recoilless weapon against tanks, self-propelled artillery units, and other armored vehicles, as well as manpower in open and closed shelters.

Specifications

Caliber	40mm
Ammunition	PG-7V, PG-7VM, PG-7VS, PG-7VS1, PG-7VL (AT-7V), PG-7VR (PG-7VII), OG-7V, TBG-7V (APTБ-7V).
Optical sight	GON-1 with mechanical sight NG-7V
Length	950mm
Weight with optical sight	6,85 kg
Effective range	depending on the round type
Firing rate	4 - 6 rounds/min
Portable combat set	5 rounds
System life	250rounds

COMMANDO

mortar

The 60 mm Commando mortar is an ideal weapon for the infantry platoon, special forces and close support fire power.

This simple design easy to operate system can be used in all types of terrain and has special advantages in forest warfare.

The Mortar comprises a smooth bore barrel, the breech piece (with fix pin firing), the base plate and range indicator. To fire ammunition required to use propelling charge "0", "1", and "2". Charge "0" which is only the ignition cartridge for a range up to 380 m and charge 2 for maximum range 1600 m. The elevating scale has mils and meter scales, which enables to align the mortar without the need of range tables. The sight is an elevation vial type. Alignment is achieved using a white line painted over the barrel. Firing is achieved using drop action method on a fix firing pin.



COMMANDO mortar

60 mm

Caliber	60 mm
Range	1 600 m
Weight	8 kg
Total length	675 mm
Elevation	45 to 85 Deg
Bomb weight	1,6 kg
Propelling charge	0, 1 and 2
Rate of fire	20 R.P.M.

20N6MT

long range mortar



Long range weapon for the infantry platoon and company.
Can be used in all types of terrain. Operated by one or two men.

Sighting system, enabling accurate alignment & elevation, incorporates firing range table. Fixed pin, causing firing immediately upon loading.

Basic characteristics

Caliber	60 mm
Range	4000 m
Weight	18 kg
Total barrel length	940 mm
Elevation	45 to 85 deg
Bomb weight	1.8 kg
Charge	1, 3, 2, 4, 5 and 6
Rate of fire	20 r.p.m.

20N6M dual purpose mortar

The Mortar comprises a smooth bore barrel, the breech piece (with fix pin firing), the base plate and range indicator. To fire ammunition required to use propelling charge "0", "1", and "2". Charge "0" which is only the ignition cartridge for a range up to 380m and charge 2 for maximum range 1600m. The elevating scale has mils and meter scales, which enables to align the mortar without the need of range tables. The sight is an elevation vial type. Alignment is achieved using a white line painted over the barrel. Firing is achieved using drop action method on a fix firing pin.

- ideal weapon for infantry platoon and squad level support
- Effective support for close range and urban warfare
- Two operation modes:
 - firing with bipod to get full range 2500m.
 - firing in commando mode, without bipod to achieve range of 1600m.
- Sight units elevation scales incorporate range tables there is no need for range tables
- Authorized ammunition: all types of qualified 60mm in use worldwide

Caliber	60 mm
Range	150– 2,550m (Full range) 150– 1,600m (Commando mode)
Weight (sight excluded)	18,0 kg (Firing with bipod) 9,0 kg (Commando mode)
Barrel length	740mm
Elevation	45 to 85 Deg
Bomb weight	1,6 kg
Propelling charge	0, 1 and 2
Crew	1 to 2



20N5

long range mortar

- Ammunition: 81 mm/82 mm frag, smoke, illuminating and target practice mortar bomb
- Optical sight providing aiming in elevation or traverse
- Crew of 4 persons
- High rate of fire: 24 rounds per minute
- Stripping into man-pack components, easy to carry on crossed terrain
- Lightweight: 47 kg
- Stripping into light man-pack components, easy to carry on crossed terrain by crew of 4 people
- Optional safety mechanism preventing from double loading

Caliber	81mm/82 mm
Maximum range of fire	5400 m
Minimum range of fire	91 m
Muzzle velocity	220 <i>mis</i>
Mortar weight in combat position	47,0 kg
Barrel length	1100 mm
Elevation range	45 to 85 deg
Traverse angle	6 deg.
Bomb weight	3,1 kg
Propellingcharge	0, 1, 2, 3 and 4
Crew	4 persons





SAFIYAR

heavy mortar

An ideal means against enemy personnel and a battalion level support. The weapon is muzzle loaded and has a classic mortar design with a smooth barrel and a double loading safety device.

Caliber	120 mm
Range of firing, km	
max. (HE mortar bomb)	7.1
min	0.5
Rate of fire, rpm	15
Elevation, deg.	+45...80
Traverse, deg.	+5
Fire consistency:	
range, vr/xmax	1/250
side v,m	12.8
Mass of mortar, kg	305
Mass without wheels, kg	215
Crew	3 persons

107 mm Multiple Launch Rocket System Mobile Complex



MLRS 107

- Base of Ford F450 XLT 6X6 model
- Engine: 6700sm3
- Transmission: 6-speed automatic

- Aiming speed: 6 degrees per second
- Minimum fire angle over cabin: 27 degrees
- Aiming accuracy: 63-107HPJ
- Navigation system, GPS, autonomous navigation system
- System overall weight: 1300 kg (loaded with 24 rockets), 870 kg (without any rockets)
- Rate of fire: 2 per second
- Maximum projectile range: 8000-11000 m (depending on a rocket type)
- Ammunition: 24 rockets (18 kg each)
- Fire guidance: Remote and on board automatic guidance
- System rotation angles:
 - in a horizontal plane:
 - 90° degrees (right angles),
 - 110° degrees (left angle)
 - in a vertical plane: 0-60° degrees

MLRS107