

# Aircraft & Anti Aircraft Ammunition

## 12.7 x 108 mm



This ammunition is used for guns Type 54. It is available in two variants:

- a. API (Armour Piercing Incendiary)
- b. API/T (Armour Piercing Incendiary, Tracer)

It can damage or destroy an aircraft within a range of 1500 meters and light armoured vehicles or vessels within 500 meters.

### Technical Data

#### Weight

API	116-126 gm
API/T	112-122 gm
Length of complete round	147 mm
Propellant	Single base smokeless powder

#### Performance

Bullet velocity	818-833 m/s
Effective range:	
Air targets	1500 m
Ground targets	500 m

#### Chamber Pressure:

Mean	3000 kg/cm <sup>2</sup>
Max	3300 kg/cm <sup>2</sup>

#### Penetration:

API	20 mm steel plate placed at 100m (Minimum 90% bullets penetrate through the plate)
API/T	15 mm steel plate placed at 100m (Minimum 90% bullets penetrate through the plate)

#### Packing (Without Links)

280 rounds packed in a H14P MK1 steel box:

Size of box	40 x 16.5 x 30 cm
Weight of box	42 Kg
Colour & marking	Service brown with yellow/white stenciling

## Anti Missile Ammunition

# 20 x 102 mm Phalanx Ammunition

(For Vulcan Phalanx Gun)



This ammunition is used in an American manufactured 6 barrelled Gatlin type Gun which is contained in its automatic controlling structure. The gun has a very high rate of fire and high muzzle velocity and is designed as an anti-missile weapon. The bullet is Armour Piercing and contains no explosive.

### Performance

The ammunition is fed into gun in link belts.

Rate of firing	3000 Rounds/Minute
Muzzle Velocity	1135 + 15 m/s
Pressure	4075 kg/cm <sup>2</sup> Max
Range	1000 m

### Technical Data

Weight of complete round	258.5 ±4 gm
Length of complete round	167.5 + 0.7 mm -0.5 mm
Penetrator Material	Tungsten alloy W95NE-H
Colour	Red
Weight	93.5 + 2 gm
Length	74 - 0.2 mm + 0.5 mm

### Cartridge Case

Material	Brass 70/30
Weight	120.45 ± 3.3 gm
Length	101.9 - 0.38 mm
Propelling Charge	Single base propellant
Charge weight	40 gm
Primer	Electric M52A3B1

### Packing (Without Links)

36 rounds in a steel box (M2A1) Measuring 31 x 16 x 19.5 cm,  
03 steel boxes (108 rounds) packed in a wooden crate (P-213):

Size of wooden crate	55 x 37.5 x 26 cm
Weight of box	49 Kg
Colour & marking	Service brown with yellow/white stencilling

## Aircraft Ammunition 23mm



23 mm caliber ammunition with percussion primer is compatible with 23mm Aerogun Model 1 and 2. The ammunition is normally used in belts comprising links type A. The ammunition is available in following three types.

- (i) TP (Target Practice)
- (ii) HEI (High Explosive Incendiary)
- (iii) API (Armour Piercing Incendiary)

### Performance

Muzzle Velocity	720 m/s
Pressure	3000 Kg/cm <sup>2</sup>
Accuracy: (at 500 m)	
PE Vertical	0.5 m
PE Horizontal	0.5 m

### Technical Data

Weight of complete round	315 gm (approx)
Length of complete round	200 mm (approx)

### Projectile

Body Material	Steel
Weight	174 gm
Length	103 mm

### Fuze

TP	Dummy
HEI	AP-24

### Cartridge Case

Material	Brass 70:30
Weight	113 gm
Length	115 mm
Propelling Charge	Single Base Smokeless 4/7
Charge Weight	34 gm (approx)
Primer	WD 327

### Packing

30 rounds (unbelted) packed in steel box M2A1 and 03 boxes in wooden crate:

Size of box	55 x 38 x 26 cm
Weight of box	50 Kg
Colour & marking	Service brown with yellow / white stencilling

## Aircraft & Anti-Aircraft Ammunition

# Aircraft Ammunition 30 mm



This ammunition is suitable for use with 30 mm gun. HP aircraft gun M1 fitted on F- 6 (MIG-19) aircraft and is available in the following three variants:

- Ball (Training)
- HEI (High Explosive Incendiary)
- API (Armour Piercing Incendiary)

### Performance

The ammunition is fed into gun in link belts.

Muzzle Velocity	800 m/s
Pressure	3050 Kg/cm <sup>2</sup>
Range	2000 m

### Accuracy:

PE Vertical	1.05 m
PE Horizontal	1.05 m

### Technical Data

Weight of complete round	840 gm (Approx)	
Length of complete round	264-267 mm	
Projectile	Steel	
Identification:	Ball	White Band
	HEI	Red Band
	API	No Band
Fuze	<b>Ball</b>	<b>PRF</b>
	HEI	No. 6, Py-5, 6M
	API	No. 8
Weight	401- 416 gm	
Cartridge Case	Brass 70/30	
Propelling Charge	Single base propellant NCHN 5/7	
Weight of charge	96 gm	
Primer	Percussion type 330	

### Packing (Without Links)

**BALL** : 12 rounds Ball packed in steel box measuring 29.8 x 15.2 x 18.4 cm three steel boxes (36 rounds) packed in a wooden crate:

Size of wooden crate	55 x 37.5 x 26 cm
Weight of wooden crate	48 Kg

**HEI/API**: 27 rounds HEI-I/API packed in tin liner which is packed in a wooden box:

Size of box	44 x 35 x 20.5 cm
Gross weight of box	31.30 Kg
Colour & marking	Service brown with yellow / white stencilling

## Anti Aircraft Ammunition 37mm HE/T



This ammunition is compatible to use with 37 mm field artillery AA guns Model 1955, including twin version. It is used against low altitude aircraft and missiles. It is also effectively used against ground targets.

### Performance

Muzzle Velocity	866 m/s
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Average chamber pressure	2800 Kg/cm <sup>2</sup>
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Maximum Range	8500 m
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### Accuracy:

PE Horizontal	1.15 m
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PE Longitudinal	1.05 m
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Firing rate	180 Rounds/minute
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### Technical Data

Weight of complete round	1.417 kg (approx)
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Length of complete round	381-385 mm (Approx)
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Projectile	Forged steel
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Main Charge	RDX/Aluminum
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Tracer	No. 405 time ≥ 6 sec
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Fuze	HE-I with SD mode (9-12 sec delay)
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Weight of projectile	732 gm (Aprox.)
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Cartridge Case	Brass 70/30
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Propelling Charge	Single base propellant HN7/14
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Primer	Percussion type No. 12 MK4 / LA (Modified)
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### Packing

Each round packed in waterproof re-useable plastic container. 20 rounds packed in a wooden box C-13/P

Size of box	46 x 36 x 30 cm
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Weight of box	43 Kg
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Colour & marking	Service brown with yellow/white stencilling
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## Aircraft Ammunition

# Bomb HE GP 500 LBS

(250 Kg) MK-P8 (Low Drag)



This is a multi-purpose bomb similar to US type MK82, having low aerodynamic resistance and is designed to be carried on supersonic aircraft. It is made from forged carbon steel according to BS-3602.

For high altitude missions, it is fitted with conventional fin assembly (Conical Fin Assembly MAU-938) and fuzes M-904 & 905. For low level missions, it is fitted with retarder fin assembly (MK-15 MOD-4) with nose fuze M-904. It can be used on all American bomb racks, French bomb racks (PM-3, PRK-12 & PRK-16) or Mirage aircraft having bomb hooks 14" apart. Can also be used with British aircraft bomb release slips having hooks with 14" spacing.

### Technical Data

Length of bomb with:

i). Retarder fin assembly	2280 mm
ii). Conventional fin assembly	2210 mm
Bomb body diameter	275 mm

Weight of bomb with:

i). Retarder fin assembly	254.54 Kg
ii). Conventional fin assembly	241.36 Kg
Explosive charge, RDX/TNT	90 Kg (Approx)

### Packing (Without Links)

6 bombs packed in steel fixture:

Size of steel fixture	1680 x 98 x 78 cm
Gross weight of steel fixture	1600 Kg
Colour & marking	Black with yellow / white stencilling

## Bomb HE GP 1000 LBS

(500 Kg) PK-83 (Low Drag)



This is a multi-purpose bomb similar to US type MK83, having low aerodynamic resistance making them suitable for external carriage on supersonic aircraft. Steel casings are manufactured from high quality seamless tubes employing latest forging technology.

The bombs are compatible with NATO standard adapters booster, tail and nose fuze. For high altitude missions, it is fitted with Conical Fin Assembly. For low level missions, it is fitted with retarder fin assembly. It can be used on all American bomb racks, French bomb racks (PM-3, PRK-12 & PRK-16) or Mirage aircraft having bomb hooks 14" apart.

### Technical Data

Length of Bomb Body without tail end	1784 ± 10 mm
Net Explosive Quantity	185 ± 10 Kgs
Filled Mass of the Bomb	410 ± 30 Kgs
Centre of Gravity of Filled Bomb	1040 ± 20 mm

### Packing (Without Links)

03 x Mk-83 Aircraft bombs will be duly packed in steel fixture (crate).

Size of Crate	1.95 x 1.15 x 0.525 Mtr (Approx)
Gross Weight of Crate	1340 Kg (Approx)
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