

PLAMEN  ZVI

PLAMEN<sup>®</sup>  
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 ZVI

TECHNICAL DATA

20mm Ammunition

The MPL-20 aircraft ammunition (TP, TP-T, API-T or HEI cartridges).

The ammunition is compatible with the M39 / M56 / M61A ammunition series

Aircraft ammunition, 20x102

Calibre	20x102 mm	
Cartridge weight	262 g	
Maximum cartridge length	168 mm	
Projectile weight	101 ±1.3 g	
Powder charge weight	39 g	
Mean projectile velocity V10 (V23)	1,041 ±15 m.s <sup>-1</sup> (1,030 ±15 m.s <sup>-1</sup> )	
Mean hit diameter in the distance 500 m	≤ 348 mm	
Types - NSN Code	HEI - 1305160042374, API-T - 1305160042375	
	TP - 1305160042376, TP-T - 1305160000168	



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AIRCRAFT GUN POD PL-20

PL-20 package for modernized Mi 24 helicopter

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»» The PL-20 package represents a set of products comprising an aircraft weapons system and its ground accessories. The 20 x 102 mm weapons system consists of the ZPL-20 aircraft gun, the KPL-20 gun pod, the MPL-20 aircraft ammunition (TP, TP-T, API-T or HEI cartridges), PYR-20 cartridges and elements of the P-20 ammunition feed belt. The ground accessories consist of the feed belt charger PLN-20, the ground control device LUN 2469, the adjustment telescope RD 20-460, the gun assembly stand, the gun pod assembly, the set of spare parts 1:1 and 1:3 and the tool set.

»» The ZPL-20 is a high rate-of-fire, two-barrels electrically controlled automatic gun for aerial usage resting together with the ammunition box and the electronic control block in the KPL-20 gun pod. The pod may be suspended under a standard NATO pylon and is standardly linked to the board control computer of the aircraft.

»» During all allowed flight modes the PL-20 package enables aerial fire at air targets (in aerial combat and

for aircraft self-defense) and at ground targets, to provide combat support for or defense of ground forces.

»» The ground accessories of the PL-20 are designated, in particular, for the pre-flight procedures and post-flight checks of the PL-20, as well as for its maintenance, transport and storage.

»» The ZPL-20 gun and MPL-20 ammunition are also utilizable for ground applications. In such cases the gun may be mounted on fixed and/or mobile platforms.

»» In 2004, all parts of the PL-20 have been certified for use in military aviation in compliance with the STANAG and MIL international standards. The ammunition is compatible with the M39 / M56 / M61A ammunition series.

»» Based on successful finalization of control and end-user tests, the PL-20 has been integrated into the armaments of L-159 aircraft and, subsequently, employed by the Armed Forces of the Czech Republic.

»» Plamen may also be used as a weapon for helicopters, boats and ground platforms.



## TECHNICAL DATA

### PL-20 package

Mass max.	229 kg
Length	3,260 mm
Ammunition	20x102 mm
Cartridge box capacity	210 pcs
Primer ignition principle	electrical

### ZPL-20 aircraft gun

Calibre	20x102 mm
Rate of fire - low	780 ± 50 min <sup>-1</sup>
Rate of fire - high	2,600 ± 100 min <sup>-1</sup>
Weapon principle	coupled breeches, gas-withdrawal actuation
Length	2,000 mm
Width	177 mm
Height	222 mm
Mass	68 ± 1 kg
Muzzle velocity	1,020 <sup>+43</sup> <sub>-20</sub> m.s <sup>-1</sup>
In-flight breech initiation	three times, pyrotechnically
Life cycle	6,000 rounds
NSN Code	1005160041727

### KPL-20 gun pod

Length	2,725 mm
Diameter	400 mm
Mass	95,5 ± 2 kg
NSN Code	1005160009886



# AIRCRAFT GUN POD PL-20