M20 WITH 12.7 mm HMG

Remotely controled weapon station

M20 RCWS armed with 12.7 mm HMG represents a modern weapon system intended for integration with light multi-role armored vehicles. It is intended for shooting on ground targets at effective range up to 1500 m. It can be used electricaly and manually.

Remote controlled weapon station comprises:

- Combat station placed on a vehicle
- Control–command block with FCS and the electronics for electromotor drive placed inside the vehicle.

Combat station comprises:

- Armoured mount movable only in azimuth (electromotive drive) and machine gun cradle with 12.7 mm machine gun movable only in elevation (electromotive drive)
- Optoelectronic block (housing) connected to the machine gun cradle axis and ammunition box with the capacity of 180 rounds placed on the right side of the armoured hull.
- Inside the armoured hull electromotor reduction gear for weapon station drives in azimuth and elevation.

Optoelectronic block is comprised of

- laser range finder
- day sight channel for opservation and aiming - CMOS camera
- night channel for observation and aiming–thermal camera
- control command block is located inside the vehicle and it comprises:
  - command block with controls for camera selection and
  - control sticks with joystick for moving the weapon station in elevation and azimuth.
- Integrated RCWS dramatically increases total vehicle firepower, situation awareness and crew survivability. Observation and engagement of targets can be done in daylight and night conditions at long ranges, due to high resolution CMOS camera, thermal imaging camera and laser rangefinder. Targets can be engaged with fast and accurate machine gun fire due to advanced integrated FCS featuring ballistic computer with automatic reticule generation.

TECHNICAL DATA FOR RCWS 12.7 mm

- **Type: Remotely controlled weapon station with fire control system**

RCWS drive in traverse and elevation	electrical
Azimuth field of action	n x 360º
Elevation field of action	-5º to +50º

TECHNICAL DATA FOR 12.7 HMG HEAVY MACHINE GUN

- Type: NSV modernized,
- Caliber: 12.7 x 108 mm
- Operation mode: gas operated
- Maximum range of firing:
  - Against aerial targets: ~ 1,500 m
  - Against ground targets: ~ 2,000 m
- Machine gun feeding: belt fed
- Number of rounds per belt: 180
- Rate of fire: more than 600 rounds/min
- Machine gun weight: 28kg

RCWS FIRE CONTROL SYSTEM

Weapon control, sighting and firing remote via joystick, and computer with fire control system software

System components:

- Sighting devices
  - Day channel: High resolution CMOS camera
  - Night channel: Thermal imaging camera
- Laser channel: Laser rangefinder
- Computer unit: Ruggedized tablet PC
- Control unit
- Power supply unit

SIGHTING DEVICES

Day Sight (CMOS camera) basic technical data:

- Image sensor: 1/2.8" CMOS
- Optical zoom: 36x
- Angle of view (H): 63.7 º (wide) to 2.3 (tele)

Night Sight (Thermal imaging camera) basic technical data:

- Image sensor: 640x512 VOx Microbolometer
- Spectral band: 7.5 - 13.5 µm
- FOV (hxv): 6,2º x 5º

Laser Range finder basic technical data:

- Eye safe wavelength: 1540 nm
- Range finder range: 80 - 10000 m
- Absolute measuring error: ±5 m

FIRE CONTROL SOFTWARE

Provides:
video processing,
automatic reticule generation and overlay,
ballistic calculation for up to 4 different weapon systems,
laser range selection,
manual range input,
sighting procedure recording,
gun zeroing procedure,
mean point of impact correction,
lead angle calculation.

SERVO DRIVE

- Type: electric, consists of:
  azimuth and elevation electric motors & mechanisms
  control electronics
  drive electronics
  azimuth and elevation position sensors
  slip ring
  cabling set
  joystick
- Azimuth angular velocity: up to 50º/s,
- Elevation angular velocity: up to 37º/s,
- Azimuth range: n x 360º
- Elevation range: - 5º to +50º
- Optional - Two - axis stabilization system

SIZE AND WEIGHT CHARACTERISTICS

- L x W x H (mm): 1656 x 1026 x 883
- Total weight (without ammunition): 280 kg

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Should you have any further enquires, please do not hesitate to contact us at **office@yugoimport.com**