

7.62mm Bushmaster® Chain Gun®



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The 7.62mm Bushmaster® Chain Gun®, originally developed for coaxial use and the smallest member of the CHAIN GUN® family, is a rugged, highly-reliable, combat effective weapon readily adaptable to a variety of armor machine gun roles. By design, it provides the optimum solution to combat the normal feed problems associated with most present-day gas operated small caliber machine guns.

Like the 25mm M242 automatic cannon, the 7.62mm Bushmaster Chain Gun ejects fired cases, including the retained gases, forward (outboard) and capitalizes on long bolt-dwell time to minimize gas buildup in all cupola or turreted installations. Toxic gas emission within the vehicle during firing has been proven to be less than five percent of that found with contemporary, gas-operated coaxial weapons.

For coaxial installation, the weapon is configured to permit barrel change in less than 10 seconds without downloading ammunition. Barrel jacket configuration can be varied to suit the needs of the specific installation and all jacket designs provide for the quick-change barrel feature.

The Bushmaster Chain Gun offers exceptional reliability and combat availability several orders of magnitude better than any comparable weapon of this caliber. The Bushmaster Chain Gun fires 570 rounds per minute of NATO standard 7.62mm ammunition.



7.62mm Ammunition:

M80 - Ball, M62 – Tracer, M276 - Dim Tracer, M118 – Special Ball-Long Range, M82 - Blank

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Gun System Characteristics*

| | |
|---------------------------|-------------------|
| Ammunition | 7.62mm NATO |
| Links | M13 |
| Weight | 30.2 lb (13.7 kg) |
| Length (with Flash Hider) | 37 in. (940mm) |
| Width | 6.0 in. (152mm) |
| Height | 6.1 in. (155mm) |
| Barrel Length | 22 in. (559mm) |
| Length Behind Rear Feed | 4.5 in. (114mm) |
| Rate of Fire | 500 – 600 rpm |
| Muzzle Velocity | 2809 fps (856m/s) |
| Time to Rate | 0.15 sec. |
| Power Required | 0.3 hp (0.22kw) |
| Operating Voltage | 26.5 vdc |
| Reliability Predicted | 50,000 MRBF |
| Clearing Method | Open Bolt |
| Misfire | Cycle Through |

* Includes gun, barrel, short jacket, drive motor and feeder.

Key System Attributes:

- 95% reduction in highly toxic propellant gases as compared to a standard M240 mounted in the co-axial position
- Reduced inboard intrusion with turret volume requirement of no more than 11 inches/28cm (length) x 6 inches/15cm (height) x 6 inches/15cm (width)
- Misfire stoppages eliminated with electrical extraction of the unspent cartridge
- Ejection of spent cases forward of the gun trunnions (not collected in a bag inside the turret)
- Belt-pull in excess of link strength
- Electrically driven bolt resulting in immediate and consistent rounds-per-minute firing
- Zero carbon build-up on (in) moving parts
- Swap-out (exchange) of barrel assembly without removing the weapon system from its co-ax mount

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