

5.56 Caliber Semi-Automatic M-4 Carbine Testing Parameters

Scope: The Texas Department of Public Safety will test each rifle to ensure conformity to specifications, functionality, accuracy, and durability. Testing will be conducted at the DPS Firearms Range located at Florence, TX by DPS Firearms Range personnel or DPS Firearms Instructors under the prevue of DPS Firearms Range personnel. All weapons will be subjected to identical testing procedures under similar climate conditions and all results will be recorded.

At the conclusion of the testing process, the results will determine which products will be eligible to participate in the bidding process to supply the Texas Department of Public Safety with duty rifles

Testing Parameters:

1. Inspection of the weapon system to confirm specification conformity as outlined in specifications required. The weapon will be cleaned and properly lubricated prior to start of test. The weapon will not be cleaned or oiled during test. No more than five (5) malfunction/stoppages allowed during testing. Ammunition related malfunction/stoppages will not count.
2. Function testing, consisting of:
 - a. Manual inspection of mechanical parts (i.e., safety actuator, dust cover, magazine release, bolt and related parts) for fit, finish, and excessive wear prior to and at conclusion of test.
 - b. Measurement of trigger pull (not less than four (4) pounds).
3. Structural integrity testing:
 - a. Drop test: The weapon loaded with a blank round will be dropped from a height of four (4) feet onto a ¼-inch thick rubber mat on a cement surface. The weapon will be dropped four (4) times: once on the right side, once on the left side, once on the muzzle, and one time on the butt with the stock in the collapsed position. The weapon will be inspected for structural integrity.
 - b. 500 rounds of ammunition will be fired as fast as the loading of magazines permit.
 - c. Structural integrity will be checked.
4. Mud/Water Exposure test:
 - a. The weapon with a closed bolt on an empty chamber, safety engaged, dust cover closed, with a 30 round magazine loaded to capacity will have a rope tied to the gun. The weapon will be submerged a minimum of fifteen (15) minutes into a stock tank (pond) and then retrieved.
 - b. The barrel will be checked for obstructions, and 30 rounds discharged from magazine that was submerged with rifle.
5. Drag test:
 - a. The weapon will be dragged for three hundred and fifty yards across a grassy area by an attached rope. The weapon will be inspected for structural integrity and the bore checked for obstructions.
6. Function/Structural Integrity/Rapid Fire test:
 - a. 465 rounds will be fired as fast as loading of magazines permits.
7. Structural Integrity Inspection:
 - a. The rifle will be inspected and checked for loose or broken items.
8. Accuracy test:
 - a. The weapon will be allowed to cool down after rapid fire test, fired for accuracy with five rounds from a distance of 100 yards with rifle placed in a ransom rest. 3 minutes of angle (moa) is required.