HKM4 Enhanced Carbine Caliber 5.56x45mm NATO





SPECIFICATIONS

Caliber

Operation Principle

Bolt Principle

Modes of Fire

Feed Device

Cyclic Rate of Fire **Dimensions**

5.56x45mm NATO (.223 Remington) Gas operated, firing from a closed bolt. Refined rotating bolt head with multiple locking lugs Semi-automatic, full

automatic HK high reliability steel 30-

round box magazine 700-900 rounds per minute Same as issue U.S. M4A1

Unique Features

• Short-stroke piston gas system

- Improved reliability, 100% function w/o H2O fording
- No fouling directed into weapon, less
- User removable/exchangeable
- Insensitive to barrel length or ammunition changes
- Improved buffer system
- Improved steel magazine
 - Improved feeding reliability, durability, service life
- Refined barrel/bolt locking recesses/lugs
 - Improved function
- · Improved extractor and spring, buffer
- Improved function
- Enhanced AG-C add-on 40mm grenade launcher
- HK cold-hammer forged barrel
 - Extended service life, improved accuracy and user safety

Additional ongoing work

- Monolithic upper receiver with integral Rail Adapter System
- Improved surface finish, ambidextrous controls
- Safety Blank Firing Adapter and Live Round Excluder Magazine
- HK free-floating modular rail system
- Integrated reflex sight with nested IR laser aimer and illuminator

Inspired by the resounding success of the midlife improvement program of the British SA80 (L85/L86) Weapons System, Heckler & Koch began a detailed assessment of the technical deficiencies of the standard US-issue M4 Carbine in early 2002.

Combining the lessons learned from this program to the already world renowned design, testing and manufacturing capabilities of HK an internally funded project was launched to improve the reliability, safety and durability as well as the salient features of the baseline weapon system.

Working with current users from around the globe HK set out to produce an M4-type Carbine that would outperform the baseline weapon and provide the high degree of performance required by the user community, particularly those within the special operations arena who demand more and expect no compromise when lives are at stake.

High-speed video assessment and extensive live-fire testing in extreme operational environments such as the U.S. Army Desert Proving Ground in Yuma, Arizona revealed multiple areas for immediate improvement. Improvements have been made to the internal operating system and miscellaneous component parts to improve reliability in best and worse case scenarios, with all types of ammunition, with all barrel lengths and with and without sound suppressors attached.

A unique user removable gas system can be factory retrofitted to existing weapons and fits within modified hand guards or a modified Rail Interface System (RIS) allowing all current standard accessories and sights to be fitted to the HKM4.

The HK-proprietary gas system does not introduce propellant gases and the associated carbon fouling back into the weapon's interior. This radically reduces operator cleaning time, increases the reliability of the weapon and extends the interval between stoppages.

The elimination of the gas tube typical of the Stoner AR15/M16/M4 direct gas operating system means that the HKM4 will function normally even if the weapon is fired full of water without first being drained.

To improve reliability, service life and operator safety during obstructed bore occurrences or after extreme extended firing sessions (>300 rounds) HK has produced its famous cold hammer forged barrel for the HKM4 in various lengths to include 10, 14.5, 16.5, and 20 inches.

The highest quality steel is used in this unique manufacturing process producing a barrel that provides superior accuracy for greater than 20,000 rounds with minimal degradation. The goal of the program to offer an M4-style carbine that will fire 20,000 rounds without cleaning, lubrication, stoppages, or parts replacement has been realized in the development of the HKM4 Enhanced Carbine

In addition to the improvements in the baseline weapon HK has produced a high reliability magazine and a proprietary buffer to improve functional reliability as well as an add-on single shot 40 x 46mm AG-C grenade launcher for quick attachment to the RIS without tools.

HK has applied its proven and fielded Safety Blank Firing Attachment and Live Round Excluder Magazine technology to the HKM4 Carbine to eliminate the possibility of live rounds being loaded into and fired through a standard issue weapon outfitted for blank firing only.

While development and validation testing of the HKM4 is still ongoing, it is anticipated that HK will offer retrofit services for existing M4-style weapons to the HKM4 standard for U.S. and foreign military and law enforcement users. A "drop-in" HKM4 upper receiver module and a complete carbine are also nearing completion.

The full potential of the M4 carbine has now been realized with the introduction of the HKM4.