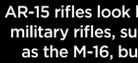




THE EVOLUTION OF THE AR-15

QUICK FACTS



AR-15 rifles look like military rifles, such as the M-16, but function like other semiautomatic civilian sporting firearms, firing only one round with each pull of the trigger.



The AR-15 was first designed by Eugene Stoner while working at ArmaLite in the 1960s.



The production model of the M16A1 was finalized in 1967.

HISTORY

The AR-15 has a rich history dating back to the late 1950s. Over time, the platform has been fine-tuned and gained immense popularity among militaries, law enforcement and civilians.

1967



M16A1

- Featured the birdcage flash hider
- An extended rib to help prevent accidentally pressing mag release button
- No longer in service

1982



M16A2

- New adjustable rear sight allowed for windage adjustments without a tool and ranging between 300-800 meters
- Incorporated a case deflector
- Full auto selection was replaced with a three-round burst

1994



M4

- Shorter, lighter version of the M16A2
- Compact size makes it better for close quarters situations and vehicle crew
- Introduced in 1994

1994



M4A1

- Fully auto variant of the M4 safe - semi-auto upgraded with thicker barrel under the handguard to better dissipate heat from full auto fire
- Railed handguards

1998



M16A4

- Removable carrying handle
- Quad rail for mounting attachments
- Standard issue for USMC

BILLET - FORGED

Two popular ways to manufacture AR-15 receivers are to use billet or forged aluminum. There's frequent debate over which method is best. We'll describe the difference and let you make the final call.



BILLET

A billet lower receiver is formed from a solid block of aluminum. A CNC machine cuts the billet into shape.

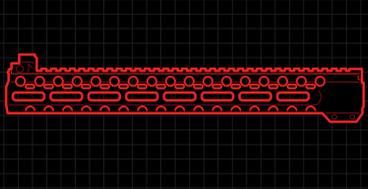


FORGED

A forged lower receiver is hammered into shape with finishing touches by a CNC machine.

HANDGUARDS

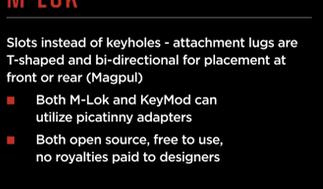
For those who love attachments the handguard is a pivotal piece of the AR-15. There are three main types — M-Lok, KeyMod and Quad Rails.



M-LOK

Slots instead of keyholes - attachment lugs are T-shaped and bi-directional for placement at front or rear (Magpul)

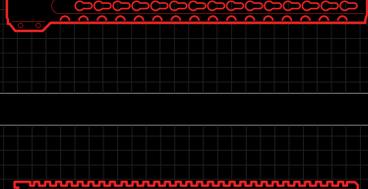
- Both M-Lok and KeyMod can utilize picatinny adapters
- Both open source, free to use, no royalties paid to designers



KEYMOD

Keyhole attachments similar to a hardware store shelf

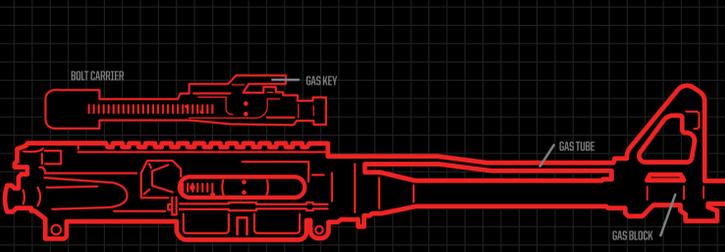
- Open source designed by Noveske & VLTOR



QUAD RAILS

Four picatinny rail sections - heavier than M-Lok or KeyMod

DIRECT IMPINGEMENT - GAS PISTON

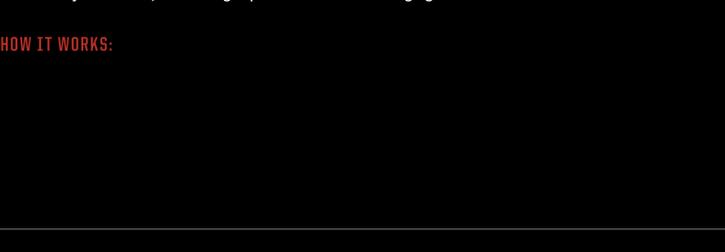


DIRECT IMPINGEMENT (DI)

Sends gas through a port at the muzzle end of the barrel, the gases travel back through the gas tube, directly striking the bolt carrier.

Here lies another point of debate among AR enthusiasts. Direct impingement has traditionally been used, but more gas piston models are emerging.

HOW IT WORKS:



SHORT STROKE GAS PISTON

Gases are contained in a cylinder that act on a piston connected to the bolt carrier group (BCG) by a rod. Gas Piston doesn't throw hot gases and carbon into the BCG, but does result in stronger recoil and heavier wear and tear on the rifle.



SPRINGFIELD-ARMORY.COM

SOURCES

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