AR-10

ArmaLite

LIGHTWEIGHT BASIC INFANTRY RIFLE

DIVISION OF FAIRCHILD ENGINE AND AIRPLANE CORPORATION

*REGISTERED TRADEMARK
Fairchild Engine and Airplane Corporation has combined the resources and modern materials of today's aircraft manufacturing with the talents of leading firearms designers to produce the world's most advanced combat rifle.

This cleanly designed, easy to handle lightweight weapon is completely reliable under all conditions. It has the inherent accuracy of a fine sniping-rifle, and the range and fire-power of a machine gun.

Modern production methods make this outstanding quality weapon available at a surprisingly reasonable cost.

The Armalite AR-10 invites comparison with any other automatic rifle in the world.
NEW GAS OPERATING SYSTEM

1. When the rifle is fired and the bullet passes beyond the gas port, gas passes through the gas tube and into a chamber formed by the bolt carrier and the bolt.
2. When the high pressure gas enters the chamber formed by the bolt and bolt carrier the bolt is in the locked position acting as a stationary piston. The entering gas pressure causes the bolt carrier to move. After traveling about one-eighth inch, the bolt carrier cuts off the supply of gas from the gas tube. Expansion of the gas now trapped in the chamber formed by the bolt and bolt carrier provides the energy necessary to continue the movement of the bolt carrier rearward.
3. As the bolt carrier continues its rearward motion it rotates the bolt, unlocking it and carrying it rearward. As the bolt assembly travels rearward the gas is exhausted through a port in the side of the receiver and the cycle is completed through inertia.

Before the Armalite AR-10 was produced, many firearms experts believed that a seven pound rifle using the NATO cartridge would be difficult to control and that recoil would be severe.

Excellent control in automatic fire is made possible in the AR-10 by keeping all recoil forces in a straight line from the barrel through the stock.

The outstanding controllability of the Armalite AR-10 now makes it possible to utilize with devastating effect the full potential of automatic fire power.
FRONT LOCKING SYSTEM
Strong, positive multiple front locking lugs on rotating bolt.

REAR SIGHT AND CARRYING HANDLE
The rear sight is click adjustable for elevation with a visible yardage scale. This sight is protected by the rugged carrying handle which is located at the center of balance of the rifle.

MAGAZINE RELEASE BUTTON
Handy magazine release button releases expended magazine by pushing with trigger finger.

DUST COVER
Close fitting dust cover provides protection from dust, sand, mud, and dirt.

QUICK TAKE-DOWN FOR FIELD STRIPPING
Complete field stripping is accomplished in just a few seconds without tools.

BUTT STOCK WITH ACCESSORY SPACE
The sturdy fiber-glass and plastic foam butt stock has a convenient storage space with trap door for cleaning equipment, etc.
SELECTIVE FIRE LEVER
The three position selective fire lever is readily accessible to the shooter's thumb, providing for semi-automatic, full automatic and “safe” positions.

BOLT STOP LEVER
After inserting a loaded magazine, pushing the bolt stop lever allows the bolt to close, feeding a new round into the chamber.

INTERCHANGEABLE BARREL ACCESSORIES
The very effective Armalite muzzle brake/flash hider can be changed for a standard flash hider with attachments for bayonet or grenade launcher if desired.

FEATURES

INSULATED FORE-GRIp
The rugged fiber glass foregrip with its high temperature plastic foam insulation, provides for extra weapon control with comfort for the shooter.

LIGHT WEIGHT MAGAZINES
Extremely light weight magazines (4 oz.) can be carried into combat fully loaded. This enables the riflemen to carry 100 rounds of ammunition ready for instant use for the same weight as 100 rounds with stripper clips and steel magazine.

WINTER TRIGGER
Bottom of trigger guard opens easily to provide for access to the trigger while wearing full winter mittens.
AR-10 4 COMBAT FUNCTIONS

BASIC INFANTRY RIFLE
The design of this weapon, while providing an outstanding infantry rifle suitable for normal combat functions, permits for quick adaptation to other functions.

LIGHT MACHINE GUN
Changing the barrel of the basic infantry weapon to a heavy, quick-change machine gun barrel with bipod converts the AR-10 to a light machine gun. Development is now in progress on a feed system which will permit continuous feed from an ammunition canister containing at least 250 rounds.

MOBILE MACHINE GUN
The development of the feed system for the light machine gun would also permit the infantryman to carry a back-pack containing 250 or more rounds of ammunition. This pack would permit continuous fire without reloading for the entire back-pack capacity. The weight of this ammunition and feed system would be less than 25 pounds. An entire attacking force would then have the capabilities of full automatic fire power while advancing.

- ONE ACTION  
- ONE LOGISTICS PROBLEM
CARBINE-SUBMACHINE GUN

Because of the light weight and easy handling characteristics of the AR-10, there appears to be no need for a weapon of the carbine or of the pistol cartridge, submachine gun, blow-back type. The objection to shortening the barrel of a rifle capable of handling the 7.62mm NATO cartridge has been overcome by the Armalite flash hider/muzzle brake combination which reduces the objectionable blast and flash of a short barrel.

SNIPING RIFLE

The carrying handle of the AR-10 lends itself perfectly to a rigid scope mount while not effecting its use as a hand grip. The accuracy of the AR-10 has been demonstrated conclusively to be superior to that of other rifles in this category.

VEHICLE MOUNTED ARMAMENT

The light machine gun with the continuous feed system lends itself well to mounting on vehicles such as jeeps, tanks and trucks. The weapon is light and mobile enough as to be quickly demountable and placed in a position of defense in the event of a disabled vehicle or other emergency.
**AR-10 SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>M-1</th>
<th>T-44</th>
<th>T-48</th>
<th>AR-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caliber</td>
<td>7.62mm (NATO)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magazine</td>
<td>.20 ROUND LIGHT WEIGHT ALLOY (4 OZ.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last Round Bolt Latch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barrel Length</td>
<td>.21 INCHES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Length Of Gun</td>
<td>.41.25 INCHES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>6.85 POUNDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sights</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Gas Operating System</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ejection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type Of Fire</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New, High Efficiency Muzzle Brake/Flash Hider</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance Point Carrying Handle, Above And Integral With Receiver</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simplified Protective Dust Cover</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Armalite basic infantry weapon combines unconventional design with the use of light weight, non-ferrous corrosion resistant metals and plastics (patents pending). This combination results in a weapon superior in all respects to other weapons in this category. The AR-10 is a mobile weapon, requiring an absolute minimum in maintenance and care yet makes no compromise in effectiveness, ruggedness, dependability, simplicity and economy.

**COMPARISON**

<table>
<thead>
<tr>
<th>Feature</th>
<th>M-1</th>
<th>T-44</th>
<th>T-48</th>
<th>AR-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Of Rifle</td>
<td>9.56</td>
<td>8.45</td>
<td>9.47</td>
<td>6.85</td>
</tr>
<tr>
<td>Weight Of Magazine</td>
<td></td>
<td>.53</td>
<td>.57</td>
<td>.25</td>
</tr>
<tr>
<td>Length Overall</td>
<td>43.06</td>
<td>44.25</td>
<td>44.63</td>
<td>41.25</td>
</tr>
<tr>
<td>Operating Rod</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Type Of Fire</td>
<td>SEMI AUTO</td>
<td>SEMI AUTO</td>
<td>SEMI AUTO &amp; AUTO</td>
<td>SEMI AUTO &amp; AUTO</td>
</tr>
<tr>
<td>Corrosion Resistant Metals</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Stock Material</td>
<td>WOOD</td>
<td>WOOD</td>
<td>WOOD</td>
<td>PLASTIC</td>
</tr>
<tr>
<td>Carrying Handle</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Quick Barrel Change [On LMG]</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Winter Trigger</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Barrel Radiator</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Dust Cover</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Effective Muzzle Brake</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Front Locking Bolt</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From the earliest stages of design the AR-10 has been planned for rapid, economical production. Every part has been designed to be produced on standard machine tools. Most of the metal removal of the steel parts is accomplished on automatic screw machines. Milling operations have been held to a minimum and can be performed on conventional milling machines. The non-ferrous alloy components can be machined at a speed approximately three times faster than steel.

The plastic stock components are made from readily obtainable materials and require none of the careful selection and long aging of wood.

Production experts agree that the short time and low capital expenditure required to establish production on the AR-10 are more favorable than for any other quality weapon in existence.

Corrosion resistant materials, ease of assembly, simplicity of training personnel, and interchangeable component parts, reduces AR-10 service and maintenance to an absolute minimum.

Low initial cost ... low maintenance costs ... low training costs ... and all this in the most modern firearm in the world today ... for years ahead, it's the Armalite AR-10.
Development is near completion on the feed system for adapting the AR-10 to a light machine gun. With a satisfactory feed system assured, design and development of a suitable tri-pod mounted standard machine gun is now well advanced.

None of the contemplated adaptations in any way affects the basic design of the AR-10 basic infantry rifle.

With the completion of the standard, bi-pod mounted machine gun the AR-10 will fulfill all small arms requirements.
straight stock principle
new gas operating system
fast and simple field stripping
simplicity of manufacture
light weight magazine

muzzle brake/flash hider
new design concept

NOTE: The AR-10 Weapon is covered by Pending and Issued U.S. and Foreign Patents.