

# Operator's Manual



## **REBAR Cutter Assembly REA Multi-Purpose Assembly for M16 / M4 Type Weapons**

### **Purpose**

The purpose of the REA Rebar Elimination Attachment is to provide the combat soldier, or tactical team police officer, an accessory to attach to the current flash suppressors with a multi-functional combat enhancement to his service rifle.

The REA will provide the user with several options that are not now currently available with the in-service flash suppressors currently employed. The following is a list that describes the multi-functional uses for the device:

- As a rebar cutter to support the clearing of rebar up to 3/4" after breaching a concrete and/or cinder block wall that is reinforced with up to 3/4" rebar. It may also be used against solid windows, chains and door security bars up to 3/4".
- As a supplement to close quarter combat, close quarter battle techniques. It is an enhancement tool when dealing with non-compliant violent personnel who do not present a lethal threat to the soldier or officer.
- As a "less than lethal" bayonet to support crowd control or riot control operations. It's a great "people mover".

- As a standoff to assist in door/lock breaching with the service weapon during military operations in urban terrains. The device may be used on both interior and exterior doors successfully, if no secondary barricading or fortification is present.
- As an emergency window breaker on vehicle side windows to support roadblock or checkpoint operations during international peace keeping operations. The device also allows the soldier to break necessary windows but maintain his defensive weapon.
- As a muzzle stabilizer during full automatic fire.

### **Mounting the Device**

The “slip on” device mounts over the currently employed flash suppressor that is threaded on the barrel of the M16/M4 weapons. A pressure fitting on the REA accomplishes this. After loosening the pressure fitting by turning it counter clockwise, place the REA over the flash suppressor with the “less than lethal” bayonet end facing away from the barrel. Be sure the REA is pulled flush against the flash suppressor then tighten the pressure fitting by turning it hand tight clockwise. Although tests have verified that at least a 16” barrel is needed for successfully cutting rebar, the device can be mounted to close quarter and close quarter battle submachine gun type weapons with shorter barrels, with the intentions of use for crowd and riot control.

### **Effect on Rebar**

The reason for cutting rebar is when conducting an explosive breach of a concrete or cinder block wall; the reinforcing rebar will not be cleared by the charge unless excessive net explosive weight is used.



When cutting rebar, the cutter must be flush against the rebar. The less the weapon is vertically angled, the less the chance of fragments escaping from the top or bottom of the device. Tests in over three thousand rounds have been fired against rebar with no fragments escaping back toward the operator. Rebar will cut cleanly in one shot: occasionally a second shot may be required. All tests have been accomplished with 5.56mm / .223 caliber using M855 and/or SS109 ammunition.

### **Maintaining the REA**

Maintaining the REA can be accomplished by following the same procedure of inspection and maintenance used for the rest of the rifle. The use of oils and lubricants, as well as issued cleaning gear to keep the weapon rust free and functional, applies. The following are additional items to consider by employing units:

- To date, we have not had a device fail or become non-operational in its current factory configuration and design. Therefore we cannot provide mean time between failures data.
- Due to the design of the device it is anticipated that should the device become damaged or inoperable it is unlikely repair would be possible. The device would need to be replaced. The REA is produced as a replaceable non-serialized accessory to the weapon.
- During the cutting of rebar, lead residue will remain in the muzzle area of the cutter. This residue can be cleaned

using standard weapon cleaning brushes and lubricants. The build up of any lead residue can be scraped off, but will not interfere with the successful functioning of the device.

- The operator should check for visible cracking or deformity to the lips of the device, and for any failure of the device to stay secure. Dye penetrant testing can be used after heavy use, or if the operator wants to check for any signs of cracking. To date this has not occurred. Testing should be done after each several hundred cuts of rebar, to insure continued operator safety and device continuity. This can also be accomplished by a given time in the unit/agency SOP, or unit armorer discretion.
- There should be no requirement for depot level maintenance of the device. The REA has been designed to be operator serviced. The entire maintenance inspection and cleaning of the device should take no more than fifteen minutes.
- Spare parts for the device are not available. The REA is produced as a replaceable non-serial numbered accessory. There is no repair for the overall machined device. If it is made unusable during operations, it must be replaced.
- Full breaching protective equipment should be worn during cutting of rebar.

The REA multi purpose weapons accessory has been found to enhance all operator capabilities as described above. If properly maintained, the device should provide hundreds of rebar cuts and unlimited life span if used for breaching, CQC/CQB, and crowd/riot control situations.

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