

# **Improving Functional Reliability of Weapons**

*with MPC's Firepower FP-10™*

Firepower FP-10™ improves functional reliability and dependability of firearms even under hostile heat and adverse environmental conditions. Most feeding and extraction problems (jams) of semiautomatic and full-automatic operation are evolved from three sources: (1) excessive heat from repetitive fire; (2) burnt powder accumulation through firing; and (3) hostile environmental conditions such as dirt and sand. Firepower FP-10™ will address and protect against all three conditions by influencing the proper functioning of the weapon. Here's how...

## **Dysfunction due to high heat**

Many semiautomatic and full-automatic weapons will dysfunction after periods of fire sufficient to build up and transfer high heat to the receiver and its moving parts. This is caused by the intense heat changing the fine tolerances of the weapon through swelling and the vaporization of existing lubricants in critical areas of operation. These two factors will cause an increase in the frictional coefficients involving the slides, bolt carriers, and other moving parts. When this occurs, the spring forces, originally engineered to function under proper conditions, become stressed and will not exert the increased force needed to eject the spent casing and retrieve a new round from the magazine while delivering the bolt carrier to its full battery position.

Firepower FP-10™ will permeate the metal surfaces of all moving parts to which it is applied and dramatically increase the lubricity by a factor of 50:1 over conventional lubes. Even if the Firepower may appear to "vapor off" under intense heat, the boundary film layer created by this product will still be present and continue to provide lubricity and low coefficient of friction operation.

Two examples are Heckler & Koch's MP-5 submachine gun and Barrett Firearms' M92A1 .50 caliber semiautomatic. Both models have a tendency to dysfunction after sufficient heat is generated through firing while using conventional lubricants. If Firepower FP-10™ is applied, no dysfunctions associated with lubricity and tolerance change will occur. Feeding and extraction problems in the Remington 870 shotguns will also be rectified from the use of Firepower FP-10™.

## **Dysfunction due to burnt powder fouling and hostile environments**

This problem is very straight forward and can be equated to rather immediately, especially in high volume semi- and full-automatic fire where rapid generation of powder fouling is more evident than the norm. If Firepower FP-10™ is used as the lubricating, cleaning, and protecting product for the weapon, burnt powder and fouling will be rejected from the surfaces of the weapon due to Firepower's chemical ability to create an electrochemical boundary film that will reject positive(+) ions of burnt powder generated during the ignition process. This is also true and functional for hostile environments of dust and sand. All airborne particulates achieve a positively(+) charged electrostatic state and are attracted to objects that exhibit a more negative(-) charge (ground). For this reason, dirt and dust collect on walls and other vertical surfaces producing grit and grime. Firepower will create an electrochemical positive(+) surface which will reject positively charged particles. (Faraday's law - like charges repel; unlike charges attract.)

Please note that an excessive amount of oil of any kind will tend to attract dirt, so use Firepower in a modest to light application.

### **Lead removal & copper build-up prevention with Firepower FP-10™**

Firepower FP-10™ will remove burnt powder and lead better than any non-corrosive product in the marketplace. A thorough swabbing of the chamber and bore with a patch wet with Firepower, then allowed to sit and work briefly will remove all powder and leading. In severe cases of lead build-up, Firepower FP-10™ should be left in the bore from two hours to overnight. This allows the product to work through and tunnel under severe accumulations, entirely removing the buildup from the bore and chamber.

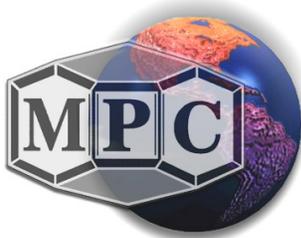
Firepower FP-10™ is non-acidic and is a neutral pH-7. It works by creating a surface charged boundary film described in the previous section. This same effect will prevent the accumulation or buildup of copper and gilded metals from jacketed bullets if Firepower is used on a regular basis to lubricate, clean and protect the weapon.

### **Stainless steel weapons and Firepower FP-10™**

When Firepower FP-10™ is used on all or partial stainless steel weapons, dysfunction along with galling, is eliminated. No other product can equal or out perform Firepower when lubricating and protecting stainless steels.

### **In Summary**

All weapons will significantly benefit from the use of Firepower FP-10™. Areas that benefit are the weapon's operation, functional reliability, resistance to fouling, and extended service life due to decreased wear through dramatically improved lubricity and reduced friction.



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