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## **CLEANING CLINIC: Putting M-Pro™ 7 To The Test** **by: Steve Schmidt**

When you're young, impressionable and growing up under the teachings of respected gun writers like Boyd Mace and Jack O'Conner, there's little temptation to experiment with anything other than a good, bolt action rifle (or so I thought). Bolt guns definitely have their advantages, especially when it comes to cleaning.

Extended shooting sessions produce manageable powder and copper jacket fouling – two residual effects we've come to accept as the necessary evils of firing high velocity, centerfire cartridges. And, fortunately, our friends in the gun cleaning business have done a fine job of addressing these types of fouling.

That was until I noticed more and more "black guns" appearing at my local gun club, out on the dog towns in South Dakota, and in the articles of my favorite varmint hunting magazines. It didn't take long to realize that today's precision-built AR's could stay on pace with, or even out-perform, my lightly customized bolt actions – it was time to go astray.

### **The Carbon Monster**

Shortly after purchasing my first AR-15, carbon fouling reared its ugly head, and removing it became an unwelcome, but necessary step in my cleaning regimen. No matter what powders I tinkered with, my AR always came out filthy. I should have expected it ... when gas serves as the primary source for cycling the action, you're going to see the byproducts of combustion in the form of hard-to-remove carbon. Expected – but, this was ridiculous.

Over the course of several weeks, I broke in the barrel, worked up a respectable handload, and continued battling carbon build-up. This was also plenty of time to discover that carbon wasn't quite as troublesome when I 1) pre-treated the key areas with a good, quality lube such as Break-Free LP, 2) took the time to clean the gun right away while its parts were still warm, and 3) could reach the problem areas with a stiff, nylon brush or scraper.

These observations were only helpful if I lived in a perfect world. Don't know about you, but this isn't a perfect world!

For me, the carbon was always baked onto the surface metal over the course of 100 to 200+ rounds. And it would lurk in the nooks and crannies – the contoured surfaces of the muzzle brake, inside the bolt carrier, and on and around the bolt face and lugs where it locked-on for eternity no matter how soon I started the cleaning process.

Cleaning a weapon that generates carbon faster than rabbits can multiply isn't for the weak of heart. I now had firsthand experience with at least a half dozen, bulldozer type solvents that couldn't hack the job when push came to shove. So, when a colleague urged me to try a product, he coined – "the best all round carbon killer on the market," I had my doubts. Still, I was open to trying anything short of brake or carburetor cleaner, so I agreed to give Pantheon Chemical's M-Pro 7 a try.

### **The Test Subject**

Since I'd spent the last few evenings scrubbing the dickens out of my AR, I decided the test animal for the M-Pro 7 trial would be a Browning Hi Power chambered in .40 S & W. This pistol had once served as the duty gun for a part-time, police officer I knew, and it was no stranger to regular range outings.

And, by the look of it, had seen a heck of a lot more shooting than it had cleaning; the bore showed remnants of heavy traffic from cast lead bullets and the underside of the slide was caked with carbon, especially around the ejection port. In all honesty, I thought the barrel had found its way to the bottom of a hot, lead production pot.



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There was no way this barrel would clean up without some heavy-duty elbow grease ... or so I thought. Closer inspection showed heavy carbon build-up on the ramp, around the exterior of the muzzle, and of course, in the hard-to-reach areas around the external extractor. This pistol would be an excellent guinea pig.

### Let The Cleaning Begin

I'll be the first to admit that I was more than a wee bit skeptical when I treated that first twill patch with what appeared to be only a clear, soapy water solution. The first thing I noticed was the lack of fumes in the room. I stuck my nose down to the patch ... NO SCENT? Then unscrewed the spray pump applicator and took another good whiff ... NOTHING!

I laughed to myself, surely this stuff wouldn't work, but if it did – boy, would the wife be happy I stopped stinking up the house!

I wrapped the patch around a .40 cal., nylon bore brush and pushed it through the barrel and out the muzzle. Wow, there were suds – and lots of them. I replaced the patch and scrubbed back and forth a half dozen times or so while holding the muzzle over a clean, empty container to collect the excess suds that formed from the foaming action.

After repeating this process over about 10 patches, I examined the bore and found it completely free of powder residue with a noticeable reduction in leading. Remember, this bore had serious lead build-up, but M-Pro 7 was cutting it. Despite little contact with the brush/patch, the ramp and muzzle exterior were already sparkling clean, a sure sign that M-Pro 7 worked on contact. And floating in the container were thousands of tiny lead and carbon particles. Things were looking good.

The M-Pro 7 people recommend a 5 to 10 minute soak time or agitation to help the bore cleaning process, so a good soaking was next on the agenda. I sealed the breech with a rubber stopper and filled the bore ¼ of the way up with M-Pro 7. Then placed my thumb over the muzzle and gave the barrel a couple quick shakes before setting it aside to soak for a spell.

I left the solution work for a good 20 minutes and periodically swirled the barrel around to induce more suds, but I figured this was only fair considering the lack of attention this barrel had received.

After draining off the M-Pro 7, I inspected the bore one more time with a bore light and was quite impressed. M-Pro 7 had dislodged what I guessed to be nearly 80% of the caked-on lead and broken it down into tiny particles that were still floating amongst the remaining liquid and suds in the bore. I flushed the bore with a couple more squirts of M-Pro 7, hit it with a couple more brush strokes, three or four dry patches and took another look. The bare steel was sparkling clean with less than 15% of the lead it started with still adhering to the bore surface.

This was quite remarkable considering no caustic cleaners were used in the cleaning process.

Satisfied with the results, I finished off the remaining lead deposits with J-B® Bore Cleaning Compound and moved onto the extractor.

I gave both sides of the extractor a single shot of M-Pro 7 and immediately saw the results as the carbon began to run off the slide and onto my workbench, another example of how well M-Pro 7 works on contact. A little scrubbing with a toothbrush and all visible carbon was GONE.

### The Other Benefits

Many shooters prefer brake or carburetor cleaner in place of more expensive, dedicated carbon cleaners. However, be aware

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that the chlorinated solvents in these products are not safe for all metals and can cause serious etching and pitting in the gun-metal.

For a real wake-up call, read the label and you'll find out they're not very safe for you, either. M-Pro 7 is proven safe on all metal types and finishes including polished nickel, aluminum, stainless steel, titanium and steels that have been hot salt blued.

But use it carefully, as it has been known to remove certain types of cold bluing and will raise havoc on stock finishes. Surprisingly, M-Pro 7 is also non-flammable, non-toxic and completely biodegradable – an added bonus when you shoot and clean a lot.

And, it works equally well on plastic wad fouling and black powder residue. Although it does not directly attack plastics, it pulls the carbon from it and causes it to curl. A few passes with a bore brush brings it right out. The neutralizing qualities of M-Pro 7 help stop the corrosive effects of black powder and breaks down the fouling while conditioning the bore.



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