



# Barrel Break-In Procedure

**Applicable to all EABCO Manufactured Barrels**

We put a lot of time and money into holding precise and close tolerances when we machine our barrels... These are necessary expenses to achieve the level of shooting accuracy we require. On the other hand, we see bore lapping (or hand lapping) as an optional and unnecessary cost that would drive up the price of our barrels. The reason is that the machine marks and/or burrs that hand lapping removes are easily removed by a simple break-in firing process.

**Here's How it Works-** Fired bullets, traveling down a clean barrel, cause enough pressure and friction to clear out burrs and machining marks. The important thing is that the barrel is clean so that the passing bullet can work directly against the bore. So, the break-in procedure is a process of cleaning, firing, cleaning, firing, and so forth.

**The Copper Fouling Process-** It is believed that much of the copper fouling that you may see in the length of your barrel is actually caused by the throat of the chamber. This is the area where the bullet gets squeezed into the rifling in a nano-second. It is believed that at the throat, some copper jacket material gets converted to a dust/gas that solidifies out in the rest of the barrel as the bullet passes through. So, it is especially important to be sure the throat gets clean during the break-in firing because if it doesn't, it can give a false read on the break-in progress of the rest of the barrel. So, develop a cleaning procedure that puts emphasis on the throat (the area just in front of the chamber).

**Throat Emphasis Cleaning-** With a good stiff cleaning rod, jag, patch, and cleaning solvent, run the patch into the chamber and about 4-6 inches past the throat. Pull it back out and repeat. After 5-6 of these short strokes, run the patch all the way through the rest of the barrel. Repeat with a clean patch and fresh solvent. This method gives 5-6 times more cleaning effort to the throat than the rest of the barrel. Repeat until your patches come out clean.

**Different Calibers, Different Steels...Different Break-In-** You'll have to get a sense for how much break-in your barrel needs. Watch the amount of fouling on your patches and detect when it seems to become less prevalent and more consistent. For example, on Chromoly (blue) barrels we recommend fire once, clean once, fire once, and clean once for 5-25 shots. Chromoly is more resistant to abrasion than stainless. So, on stainless we recommend fire once, clean once, fire once, and clean once for only the first 5 shots. Likewise, small calibers tend to break in differently than larger calibers. So, watch the color of your patches to see a point where the amount of fouling between shots settles to a consistent amount. When it settles, go to the next break-in step.

**Chromoly Break-In:** 5-25 one shot cycles, 2 three-shot cycles, and 1 five shot cycle.

**Stainless Break-In:** 5 one shot cycles, 1 three shot cycle, and 1 five shot cycle.

**- Solvents Recommended** - For a mild abrasive/lapping action, we recommend a good quality bore paste... It's especially useful for breaking in barrels but also a great regular cleaner (see instructions below). If you want to use a solvent, avoid harsh cleaners that contain a high concentration of ammonia. For serious copper removal with a solvent, we recommend Wipe-Out bore foam followed by Butch's Bore Shine for clean-up. For lubrication after all cleaning, we recommend Clenzoil... Which protects the metal and also helps to reduce fouling. Something new is KG-12 Copper Remover and KG-2 Bore Polish... excellent Stuff!

**- How to Use Bore Paste** - First, order a bronze bore brush one size smaller than your caliber. For example, if you are shooting 6.5mm (like 6.5 Creedmoor), use a bronze bore brush size of 6mm or .243. Run your cleaning rod with the bronze brush from the breech thru the barrel and out the muzzle. Wrap a patch around the brush, moisten it with oil and draw it back through the barrel to pre-moisten the barrel and remove loose fouling. Repeat, only this time, moisten the patch with Bore Paste. This time, draw it back and forth through the barrel. When it's dirty, do the process with a fresh patch and oil until the patch comes out clean.

SHOULD NOT BE RUNNING CLEANING FROM MUZZLE TO BREECH INITIALLY-THE WAY THIS IS WORDED MIGHT MAKE IT SOUND THAT WAY.