



How should I break-in my new Rainier Arms UltraMatch barrel?

Break-in procedures are as diverse as cleaning techniques. Shilen, Inc. introduced a break-in procedure mostly because customers seemed to think that we should have one. By and large, we don't think breaking-in a new barrel is a big deal. All our stainless steel barrels have been hand lapped as part of their production. Hand lapping a barrel polishes the interior of the barrel and eliminates sharp edges or burrs that could cause jacket deformity. This, in fact, is what you are doing when you break-in a new barrel through firing and cleaning.

Here is our standard recommendation: Clean after each shot for the first 5 shots. The remainder of the break-in is to clean every 5 shots for the next 50 shots. During this time, don't just shoot bullets down the barrel during this 50 shot procedure. This is a great time to begin load development. Zero the scope over the first 5 shots, and start shooting for accuracy with 5-shot groups for the next 50 shots. Same thing applies to fire forming cases for improved or wildcat cartridges. Just firing rounds down a barrel to form brass without any regard to their accuracy is a mistake. It is a waste of time and barrel life.

How do I clean my new Rainier Arms UltraMatch barrel?

As with break-in and using coated bullets, you will find many diverse opinions on this subject.

EQUIPMENT: Cleaning Rods: Use a good quality coated cleaning rod with a rotating handle. The rotating handle allows the brush or patch to follow the lands and grooves. A non rotating handle forces the brush bristles to jump over the lands and grooves instead of following them. **BRUSHES:** Use a good brass or bronze brush with a looped end. Do not use a brush with a sharp, pointed end.

SOLVENTS: Every shooting product manufacturer has their own miracle solvent, and most do the job as advertised.

BORE GUIDES: Highly recommended!

PATCHES: Flannel or cotton patches work the best. Either trim or fold your patch to insure that it will fit snugly into the bore, but not so tightly you have to force it. Forcing a patch causes the rod to flex inside the bore of the rifle. If you are using a coated rod, this usually won't hurt anything, but the uncoated stainless steel rods that some shooters use can batter against the inside of the bore and damage rifling.

PROCEDURE: Once again, many different procedures abound. All accomplish basically the same thing. Here's ours: With the bore guide and the brass brush on the cleaning rod, apply the solvent to the brush by dipping it in the bottle or squirting a few drops on the brush. Slide the bore guide up over the brush and insert the bore guide into the chamber with a twisting motion. Push the brush through the barrel until it comes out the end of the muzzle. Now pull the brush back into the chamber guide. This is one "cycle". Make one cycle for each bullet fired, then apply more solvent to the brush and repeat this procedure. Now, fold or cut the patch for a snug, not tight, fit. Push the the first patch all the way through the bore and out the muzzle. As you draw the rod back, the patch should fall off. Put on another patch and push it towards the muzzle until you can feel it touch your finger placed over the muzzle. Then draw the patch back to the chamber and push it once more out the end of the muzzle so that it drops off. Repeat this with one more patch and you are finished. If you are through shooting for the day, lightly wet a patch with a light viscosity machine oil to prevent or retard rust. Push this patch through the bore. Let it drop out the muzzle, and you are done.

How clean is clean?

We get this question many times and have a great deal of difficulty helping some customers understand that a rifle barrel does not have to be spotless to shoot great. Many times more harm than good is done in trying to get it that way. Picture a car's fender. If the fender has a small dent in it, then professional application of body putty fills the dent. When painted over, the dent becomes unnoticeable, and the surface of the fender is smooth and consistent. The same thing happens in a rifle barrel on a microscopic level. Removing this small trace of copper puts you right back to square one. The next bullet that crosses that area will, again, leave a small trace of copper. Similar to patching a pothole. All successful benchrest shooters shoot one or more "fouler" shots down the barrel before going to the record target. This is not to warm up the barrel. They are resurfacing it on the inside. Benchrest shooters clean between relays to get the powder fouling out, not the copper. However, since copper usually comes out with the powder, they know that it must be replaced to get "back in the groove". I've had shooters tell me they "cleaned their rifle for 3 hours to get all the copper out of it." Their next statement is almost invariably that they had to shoot 4-5 rounds through it just to get it back to "shooting" again. This tells me that in order for the rifle to shoot well again, they had to replace the copper they worked so diligently to remove. I have a 7x08 Improved that shoots the same 1/2" MOA after 15 minutes of cleaning or 3 hours of scrubbing and de-coppering. Personally, I prefer shooting to cleaning. The gist of this is to set a regular cleaning regimen and stay with it. If the accuracy of the rifle is acceptable with a 15 min. cleaning, why clean longer? I would much rather have people admiring the groups I shot than marveling at how clean my barrel looks on the inside