

BARREL CRYOGENICS

Dear Technoid,

Do you or any one you know have any experience with the Cryogenic process that claims to provide metal stress relief through the gradual process of freezing to -300 degrees and then heating to 300 degrees F. varied precision metal objects. I saw this procedure described on the Discovery Channel and it seems to make sense. The company claims the process relives stress in metal resulting in better patterning shotgun barrels and tighter groups for pistol and rifle barrels. Cleaning and operating life is also said to be greatly improved.

Thanks for any insight you may provide on this subject.

F.B.

Dear F.B.

No, I have never tried it or extensively tested a shotgun barrel that had been so treated. Being the Technoid, however, still entitles me to an opinion based on ignorance, prejudice and blind supposition. **SAVE YOUR MONEY!** What a bunch of hooey.

I can see how stress relieving can help on a rifle barrel, but on a shotgun barrel? These guys ought to get real. "Better patterning" shotgun barrels? What exactly do they mean by that. I have seen no controlled tests nor any allusions to any. That is like saying that your detergent is "whiter and brighter" than something or other. In a rifle, stress relieving is supposed to produce more consistent barrel vibrations during the expansion and contraction of the metal due to heat build up. Maybe yes, maybe no. A one inch change in impact at 100 yards is a big deal in a rifle. Even half of that matters, so a few dollars spent to freeze a rifle barrel might be worth a try. But now think of a shotgun pattern at 40 yards and tell me how much difference it could make. Perhaps in a special rifled barrel slug gun, but then we are really talking big bore rifles. Freezing may technically work on a shotgun barrel, but it has to make a measurable difference to be worth it. That is the key.

As to barrel life, I have never heard of a shotgun barrel being worn out. A properly cared for shotgun barrel can last, literally, a million rounds. How is lead and plastic going to wear out steel? Hooey, hooey and more hooey. Chokes do not "shoot out". They rust out. Shotgun barrels are "worn out" when they are allowed to rust and then have to be polished out, thus removing metal. Do this often enough and they will certainly "wear out", but that is about the only way apart from exterior damage.

As to cryogenics improving the cleanability of a shotgun barrel, I just cannot imagine it. All my Beretta shotguns and some of my FNs have chrome plated bores. My other FN Brownings are polished steel. My ancient old 1926 Webley and Scott SxS now is slightly less than perfect in the bores. They all seem to lead and plastic up about the same. It really depends more on the quality of the shell and the forcing cone area. Maybe cryogenic stress relieving can alter the alignment

of the surface molecules enough to make a difference, but if chroming doesn't change things drastically, then I would doubt that it could.

I won't argue that stress relieving may help a rifle barrel, but the process there is very much different than the dynamics that take place in a shotgun. It may also help in a pistol, although I don't know anyone who can hold tight enough to tell. A target pistol has a lot more in the way of variables than a target rifle.

I think that this stress relieving stuff applied to shotguns is like barrel porting. It is an idea that has some legitimate application to other parts of the firearms industry, but the benefits to shotguns are so slight, or totally imaginary, as to produce negligible or non-existent results.

I repeat- Hooey, hooey and more hooey. Skip it. Strong letter to follow.

That said, if you try it out and can prove that it improves anything, I will publicly grovel and freeze everything that I own. I may know it all, but I don't know everything- or words to that effect.

Regards,
Bruce Buck
Shotgun Report's Technoid