Accurizing®

Field research from serious shooters who gain 50%+ accuracy, longer barrel life, & easy-to-clean capability.

500,000 barrels processed.

On Target:

Field research from serious shooters who gain 50%+ accuracy, longer barrel life, & easy-to-clean capability. 500,000 barrels processed.
“In my opinion, 300 Below’s Cryo Accurizing Process is one of the most significant advances in accuracy enhancement made in the twentieth century. From now on, whenever I have a new barrel fitted, it will receive Cryo Barrel Stress Relief before firing a single round.”

- Steve Timm, Contributing Editor
Varmint Hunter Magazine

XP-100 AVG GROUP WAS 1.370” @ 200 YDS
SENT TO 300 BELOW FOR STRESS RELIEF
AVG GROUP SIZE NOW .786” @ 200 YDS
GROUP SIZE REDUCTION .584” @ 200 YDS

“I AM VERY HAPPY WITH THE RESULTS.”
Frank Glenn, President
Accuracy Unlimited
All firearms are produced with internal stresses. As the metal is bored, reamed and machined, mechanical stresses are created. As forgings and castings cool, the differing rates of temperature change introduce residual stresses. Heat treating leaves thermal stress behind.

Careful manufacturing, of course, provides barrels that shoot well ... stresses and all. Stresses cause barrels to twist and arc as they heat up from firing. This is one reason why good three-shot rifle groups are easier to get than good five-shot groups. Shotguns do the same thing. At the end of a typical 10-shot sporting clays string, pattern placement can shift six inches at clays ranges. With 25 shots, pattern placement can shift up to 12 inches, meaning a 40% change in pattern.

With the bending and warping from heating or repetitive firing, there is a stringing, walking or wandering in the shot groups or shot patterns. Serious shooters often consider rearranging the molecular structure of their firearms, which quickly fixes these shot shifts by using cryogenic processing. By introducing a deep cryogenic process that has been carefully modified to ensure barrel temperatures descend and rise in equilibrium with the outside environment matched to the thickest part of the firearm, there is a notable difference in shooting performance which yields improved accuracy and barrel life.

While all firearms have barrel stress, using a computer-controlled cryogenic process is the only proven way to permanently eliminate these barrel stresses in a way that produces a homogenously stabilized barrel. Carbon particles precipitate as carbides form into a lattice structure and fill the microscopic voids. This creates a denser, smoother surface that reduces friction, heat and wear. The result is better shot groups in handguns and rifles, with more consistent coverage and placement of shotgun patterns.

With 300 Below’s Cryo Barrel Stress Relief process, even benchrest-quality barrels are improved by relieving their internal stresses. With over fifty years of experience treating metals, our process ensures there is no risk of damaging your barrel or the action of a firearm.
What is Cryo Barrel Stress Relief?

300 Below’s **Cryo Accurizing** process helps shooters maintain the highest level of accuracy by rearranging metal molecular structures of gun barrels to ensure that uneven stress imparted is relieved, creating a more consistent and uniform surface inside. While for manufacturers, we often apply our cryogenic process after rough machining and prior to finished (fine) machining, most clients recognize that the greatest accuracy enhancements occur when applying our Cryo Accurizing process to the gun barrel after all internal work is concluded.

- **Greater Accuracy**
  (up to 50% better group)
- **Longer Barrel Life**
- **Easier To Clean**
Before CRYO-Barrel Stress Relieving

After CRYO-Barrel Stress Relieving

Actual group from AR-15 with iron sights at 100 yards.

Actual group from 30-06 Hunting Rifle at 100 meters.

Actual group of Remington 700 with 24X Leupold Scope at 100 yards.

Molecular structure formation with flaws from out of phase solidification

Denser, realigned molecular structure resulting from cryogenic processing

Before & After Cryo Processing

GAPS

TEARS

OVERLAPS
**Who is 300 Below?**

**300 Below** / CryoTech is the world’s largest and oldest commercial cryogenic processor, in business since 1966. **We deep freeze metal to make it last longer and perform better.** Our high volume processing facility is located next to the Midwest Inland Port’s intermodal ramp, serving individual consumers as well as manufacturers to ensure the highest level of accuracy for each firearms platform. 300 Below is registered as Firearms Broker and Exporter with the United States Department of State, retains a current Federal Firearms License, and processes weapons components for all branches of the United States Military. We originated the first patent to cryogenically treat firearms, and continue to pioneer innovations in the defense industry to keep our nation and its allies protected. We utilize a two-step process called **cryogenic tempering**: first freezing metal, followed by a triple-draw heat temper.
Our shooter was verifying long distance (600 yards) 1/4 MOA accuracy out of one of our new (2016 model) National Match rifles, with 20” 416 stainless steel, 1:8 twist, using barrels cryo’d by you. This is a production rifle, not purpose-built for testing.

Steve Mayer
LE / Gov’t Sales Manager
Rock River Arms
FIELD TEST RESULTS

300 Below treated my heavy Anschutz barrel, Match 54. In the past, my rifle would shoot well once its barrel was warmed up, but during qualification, that made competition dicey at times. If I had to hold up for a wind change during an international tournament, I could not go back to the sighter bull to warm my barrel back up. If my barrel cooled down, I could count on my first shot being out, high and right.

My crap shoot: would it take one or two shots for it to come back in?

After 300 Below’s Cryo Accurizing treatment, this tendency to shift when warming up seems to be gone. I can finish one 20 shot string, go down, change targets and get back in position 10+ minutes later, all while still threading my next shot solidly into the ten ring.

I am attaching some results for you to amuse you. These targets were fired from an ISSF legal prone position

Cheers,
Paul Borthwick
Glenelg, Maryland
I bought a Winchester M70 in .243 win back in 1991. After much frustrating load development, the best I could make it shoot was .712 for 5 shots at 100 yards.

I heard about 300 Below in Precision Shooting magazine and sent my barrel in for treatment. After getting the barrel back and reassembling my rifle, I proceeded with more load development and wound up with a load that shot .381 for 5 shots at 100 yards.

After 2,150 rounds and 18 years later, my rifle still shoots .430 for 5 shots at 100 yards and cleaning is much easier. Over 2000 rounds of steel loads is more than any .243 should last.

I am currently having a .300 Winchester Mag. done by 300 Below. I am sold on the process and recommend it highly.

Andy Sorrell
Schenectady, New York
“One thing was clear from the start: there had been a tremendous increase in the barrel accuracy brought about by 300 below’s deep freeze alone.”

Geza Nagy, Editor
Precision Shooting
FIELD TEST RESULTS

Very satisfied with my improved groupings. After seasoning the stainless DPMS barrel, I had 300 Below’s Cryo Accurizing process applied to my barrel. As usual, it came back in perfect condition, just as did my other 2 barrels that 300 Below treated in the past.

I only needed to take 5 or 6 shots to get it dead on at 50 yards.

My next 2 shots at 100 were left and low.

My last 2 were center and low, as shown in the picture.

This was shot from a seated position but not sand bagged. I have seen AR’s that cost 3-4 times the amount that I paid for mine that I built, and they shoot downrange with larger groupings.

I am so glad to have 300 Below treat my barrels! Very professional, with a fast 72 hour turnaround.

Tim Overby
Pinnacle, North Carolina
FIELD TEST RESULTS

Wow I cannot truly believe how great my rifle shoots after treatment! I was so frustrated..... the first shot fired out of my rifle would be on target; all shots fired straight after were from 50mm to where ever, if you could find them. Once my rifle cooled for 15 mins or so, the first shot was back on target. Some ammo shot high, some shot low, and you had to remember what was loaded while allowing 2-3 inches high or low-- what a pain!

I searched the net to find 300 Below had the best reports and info, so I sent my barrel to them. I must say what fantastic help and excellent communication, even with a customs glitch here in New Zealand.

Now as you can see from my targets, the new grouping is very good and close, even using three different types of ammo.

Why did I need such good results? Because I head shoot or neck shoot everything out to 400 meters. Most deer are shot at 50-100 meters using ballistic tip ammunition. My Rifle is a Zastava .223 with a Norico 3-9x40 scope. My dog is Walter; he’s never lost an animal yet.

Keith Blackie
New Zealand
6-8-10
BEFORE TREATMENT

1. Rem Blitz King
2. Rem PMC
3. Normco FM5
ALL 55gr

200mtr

4x9x50 Normco Scope
BiPod Used

27-1-11
AFTER TREATMENT

1. Rem B. King
2. Rem PMC
3. Normco FM5
ALL 55gr

200mtr

4.9x50 Normco Scope
BiPod Used
I’ve now had six barrels treated ... and every confounded one of them has shot better after the treatment. What the treatment did to a couple of previously ho-hum barrels was amazing.

Merrill Martin, Writer
Precision Shooting

300 Below’s Cryo Accurizing process worked great for me!! I have more and will have lots more targets looking like this (on the right) later in the year if you would be interested.

L. David Whitehead
Bellefonte, Pennsylvania
200 YARDS, AR-10, .308 WINCHESTER
168 SIERRA OTM – L. DAVID WHITEHEAD
I sent an Imbel gear-logo receiver with about 6,000 rds through it, and Imbel 18” chrome-lined barrel that was NIW when I bought it, but had about 3,000 rds through it when I sent it off. The barrel, receiver, handguard ring, front sight block, and Moses Hurricane flash hider were all sent and processed as one unit. The finish was Gunkote over fresh parkerizing (3-6,000 rds ago), and the process did not damage the finish at all.

I am happy with the results and feel I more than got my money’s worth. In summary, I did see a marked increase in accuracy, and reduction in zero shift.
Average Group Position - 155gr SMK

<table>
<thead>
<tr>
<th># groups</th>
<th>Avg 5-shot Group Size</th>
<th>Avg Velocity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4.20</td>
<td>2,617</td>
<td>Pre-Cryo</td>
</tr>
<tr>
<td>9</td>
<td>2.99</td>
<td>2,598</td>
<td>Post-Cryo</td>
</tr>
<tr>
<td>2</td>
<td>3.62</td>
<td>2,619</td>
<td>Post-Cryo</td>
</tr>
</tbody>
</table>

1.10 MOA
26.1% Smaller Groups
-16 Ft/sec
-0.6% Less Velocity
FIELD TEST RESULTS

You have the dime at a hundred yards going on now, let me throw this to you.

With some of the barrels your company has done for my clients they have reached out to 2,000 yards on prairie dogs.

Matter of fact, our longest has been 2,056 yards and my personal record has been 1,883 yards.

Now we all know there’s a lot goes into shooting a pop bottle sized object at that distance, but a good barrel has a lot to do with it.

On normal shooters they are putting 300 to 600 rounds a day down range in 80° to 95°, and without 300 Below’s cryogenic treatment, staying true on target would not happen. So, to you and your great employees and fantastic company, congratulations on 50 years.

Sincerely,

Justin Lesser
Wyoming High Plains Safaris, LLC