

Featured Company: M&R Arms Specialties

M&R Arms Specialties Improves Accuracy by 48 percent Using Black Magic Technology

Customers see increased accuracy, range extension, and more consistency in repairs

Challenge

M&R Arms Specialties, a gunsmithing company, located in Mt. Clemens, Mich., needed a way to refinish and repair a firearm that would require less product disassembly without compromising the accuracy and range extension of the firearm.

Before using Bonal Technologies' Black Magic® system, the company used a cryogenics system which required complete dismantling of each product. This dismantling took a long time to complete and often had widely varied results. In some cases, the condition of the firearm was actually made worse.

Solution

After learning about the Black Magic – the Ultimate Distortion Controller, Mike Boglarsky, owner, M&R Arms Specialties, decided that this system might solve the problems he was facing with the cryogenics system currently being used. He felt that using a system that did not require complete disassembly would definitely benefit his customers as well as protect their investment.



Ruger M-77, 7 mm magnum, complete assembly on the Black Magic System for processing. After processing, the firearm had a 48% Tightened Hole Grouping. Black Magic® will improve performance, increase accuracy and extend barrel life.

Result

The Black Magic process has been a big improvement over the cryogenics system for M&R Arms Specialties. The

Black Magic process vibrates a work piece at its sub-harmonic energy level and uses no heat or freezing, so there are no adverse effects on the work piece being treated.

M&R Arms Specialties commonly is asked to refine and improve firearms that are shooting large groupings or erratic patterns. What has now become an important step in obtaining the highest accuracy possible out of the firearm, M&R Arms uses Black Magic on the completed barrel. The immediate result is a shrinking of the groupings and making the patterns tighter.

Black Magic Application on Rifle Barrel

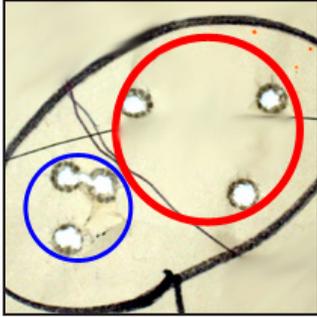
- Challenge:** Tighten Hole Grouping
- Rifle:** M-77 Ruger, 7mm, magnum
- Barrel:** 24" length
- Ammunition:** 175 Grain Winchester, magnum
- Target Distance:** 100 yards
- Position:** Clamped in bench rest on a lead sled
- Shots Fired:** 3 in rapid succession
- Pattern Size Before Black Magic:** 35.4mm dia.
- Pattern Size After Black Magic:** 18.5mm dia.

(48% improvement)

Article was Customer Approved Prior to Initial Publication.

Accuracy Improves by 48 percent Using Black Magic Technology

One example of the Black Magic process at work is when M&R Arms had a Ruger M-77, 7mm Magnum in its



Before processing: 35.4 mm diameter grouping in red.
AFTER processing: 18.5 mm diameter grouping in blue.

shop for refinishing. The company added the Black Magic process to assure the tightest hole grouping possible and it was applied to the completed product without disassembly. Upon completion of the Black

Magic process they tested the Ruger and found that the hole grouping for this specific firearm went from a previous 35.4mm diameter grouping to a 18.5mm diameter grouping, a 48% improvement in the hole grouping!

“We are proud to be able to say that with the Black Magic® System we will be able to improve accuracy, increase performance and extend the barrel life on all of our customers’ products,” said Boglarsky. “Without having to dismantle the product, our customer satisfaction has gone up because their firearms can be returned to them in a timelier manner.”

Impacting the bottom line

M&R Arms Specialties has used the Black Magic System for more than one year. Since switching over to this subharmonic system, M&R Arms Specialties has also seen an increase in their business.

The customers are extremely comfortable knowing this process does not require dismantling of their product to complete. The company has also seen a cost reduction since no tear down is needed other than removing the scope and removing it from the stock.

“Compared to the cryogenics system that was previously used, the Black Magic System is superior in every way,” said Boglarsky. “And our customers are satisfied since they get their gun back more quickly and more accurate than ever.”

M&R Arms Specialties has a fully qualified instrument machinist in charge of all repairs and has a technician trained in military style arms. The company has 43 years of combined military experience and has arms training from the commonwealth of New Zealand. They have experience building competition rifles and handguns - AR15/Rem.700/FN-FAL/1911/Hi-Power and have the ability to adjust arms to commonly achieve 1/2” groupings at 100 yards.

The Details

Black Magic uses a simplified version of Bonal Technology’s Meta-Lax vibration stress relief process automatically. In simple terms, the technology massages metal parts by inducing energy to effectively relax the stress. Black Magic neutralizes internal pressure which enables the metal to be more stable when machined or repaired.

Black Magic induces a mild sub-harmonic energy into the single or batch of parts placed on its platform. The amount of induced energy is based on the weight load of the components being treated. This energy level is maintained for 25 to 65 minutes depending on the type of material. The result is less distortion in the subsequent processing.

Black Magic is recommended to be used before each manufacturing step where distortion is anticipated. These manufacturing steps may include machining, grinding, EDM, hardening, welding, heat treating and sawing. This process enables companies to use less machining and manufacturing time and as a result have greater productivity and profitability.

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