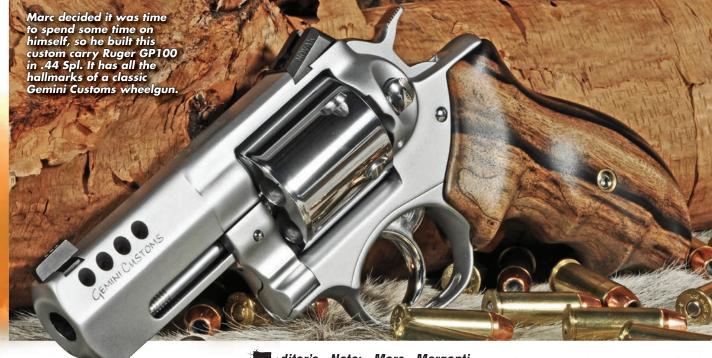


AMERICAN HANDGUNNER DIY GUNS • 2019 SPECIAL EDITION





°ditor's Note: Marc Morganti is owner of Gemini Customs, renowned maker of customized double-action Smith & Wesson and Ruger double-action revolvers. While this project might be beyond the means of an average DIYer, it makes for a great inspirational story for all of us!

This story begins at the end of a very busy time in September. I'd been working six to seven days a week for many months trying to get a backlog of customer projects completed and returned. Most good pistolsmiths will tell you, "There is no such thing as a rush job," but all this work and no play was beginning turn into a case of burnout for me. So why not just take a week and build something

After some thought, I decided my personal project would be the revolver I wish Ruger had built in the first place, and one chambered in .44 Special. It's a big hole-maker, easy on the wrist, is very accurate and a fine defensive cartridge when loaded with good bullets.

## Realizing the Ideal

Ruger introduced a fine example of the GP100 chambered in the .44 Spl. cartridge about two years ago. It's an excellent weapon on the proven GP100 chassis, but it has an adjustable rear sight. For me a real-world concealed carry or combat style revolver would be better with a Novak Lo-mount rear sight like on Ruger's "Wiley Clapp" style GP100 and SP101 revolvers.

They are, in my humble opinion,



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is in part due to the fact they're outfitted at factory level with the excellent Novak Lo-mount style rear sight. What I wanted in my dream gun was one of these chambered in .44 Spl. Here's where the fun begins and my mind gets to be creative and refreshed again.

Fortunately for me, in early 2018 Ruger released a GP100 in the Wiley Clapp pattern with the excellent Novak Lo-mount rear sight and chambered in the powerful high pressure 10mm cartridge. It also has a frame window large enough to accommodate the large diameter .44 Spl. cylinder. Eureka! I found the key to my project. If I could cannibalize the cylinder and necessary action components from the .44 and transplant them into the 10mm, there would be my dream gun.

# Making It Real

I took two guns, one a donor (a .44 Spl.) and the other a transplant recipient (the 10mm) and built one dream gun. Sounds simple enough, but nothing is ever this easy — at least for me anyhow. The barrels are two different thread pitch diameters. The low-pressure .44 barrel is a smaller diameter thread pitch than the larger diameter high-pressure 10mm barrel. So, I would need to custom machine a barrel for it.

With barrel blanks in one hand and micrometers in the other, my next task was to turn a barrel blank between centers on the lathe. This would enable me to machine and fit a barrel with the bore perfectly concentric to the outside diameter of the barrel and the soon-to-be-machined and threaded barrel shoulder. A couple of facing cuts and two spe-

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cial mandrels to hold the barrel, and soon the blank was turned true and straight and both ends faced.

The next set up in the lathe was to turn the shoulder down to the correct diameter and length for the threaded portion of the barrel to screw into the frame of the 10mm chassis. Chasing threads on an old manual lathe requires a lot of concentration, so now my staycation was starting to really be fun! Yeah, I'm a glutton for punishment ...

After a couple of hours on the lathe I had produced a beautiful, straight and nicely machined .44-cal. match grade barrel ready to install into the 10mm transplant recipient. I was ready to fit the new barrel to a newly transplanted .44 Spl. cylinder and establish the correct cylinder-to-barrel gap. This takes a little time; more than a few trips to the lathe to remove metal in tiny amounts with patience and

some careful measurements. When properly executed it makes a beautiful gap of 0.005". That's where I like the gap set on my guns.

## **Shaping Up**

At this point in the project I had a frame with the Novak Lo-mount rear sight with a 5-shot .44 Special cylinder and crane assembly fitted and head-spaced. There's a fat barrel installed into the frame, fitted and gapped. I was now ready to begin the process of removing everything not looking like a factory style sculpted and contoured barrel from the fat, oversized outer diameter of the barrel.

This is where the rubber hits the road for a machinist or a model maker. The frame outline was scribed onto the barrel and a series of angles was calculated to allow me to machine away all the material from the large OD of the barrel and transform it into a symmetrically accurate sculpted barrel closely matching the contours of the frame.

Without getting overly technical, I'll tell you this took me a full two days. It made a sizable pile of high-grade stainless steel chips on the table of my milling machine. It also produced a really nice looking and fitting barrel that, when reinstalled onto the 10mm frame, looked as if it grew from the frame. It's dead nuts zero flush with the top of the frame and everything is machined in index to this surface. There's no more accurate way to machine the relationship of the front sight to the rear sight than by doing it like this.

So, everything was looking really good so far and I hoped the action components from the .44 Spl. donor gun would be able to reside in the









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newly reconfigured 10mm transplant recipient. If not, I'd just blown my earnings at the table in Vegas so to speak. However, God smiled on me and, with a little coaxing and fine tuning with careful attention to detail, it all went together and worked. Timing was carefully set and adjusted and the action tuned to perfection. The DA trigger pull proved to be buttery smooth and delightful to cycle 10 lbs., and the SA a crisp, creep-free and clean-breaking 2.5 lbs.

### The Next Level

I wanted to put the best of the best of everything I offer into this gun, so I machined the 5-shot cylinder for moon clips. Tom Kilhoffer at TK Customs had just redesigned moon clips for the .44 Spl. Ruger at my request. We had been using the moon clips of

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his design for the new Model 69 S&W, but they required a bit more material to be removed from the ejector of the Ruger than we preferred. Tom's redesign of this moon clip is nothing short of perfect now and my dream gun was

getting the conversion.

I needed to select a set of grips and fit and bed them to the frame. Since I had the gun working but untested, it was time to select and fit a set of grips from my inventory of grips rough machined and ready for that process. I had been rat-holing away a set of black and white ebony grips for just such a project, and I thought this gun deserved something really different.

The Ruger was now ready to receive our Hybra-port porting. I treated it to our V8 style with port diameter and cone angle sized to match the pressures generated by medium to high pressure. It nearly eliminates muzzle flip, and significantly lessens the recoil impulse. Also, the V8 configuration works beautifully with the front night sight. The installation of a front sight, which I guesstimated at 0.0210" tall, was next and all that was needed to get the unfinished but mechanically functional weapon to the range to test fire, proof performance and maybe

see a little accuracy work, too.

A Novak 0.200" tall was in my inventory and was installed into the dovetail machined into the indexed barrel. Everything checked out, all my measurements were checked, checked and checked again. Everything was correct, everything felt right like the hundreds upon hundreds of revolvers I have customized and upgraded before, so it was time to see how it would run.

#### Hands On

Heading to my range, I grabbed targets, gun, my earmuffs and shooting



glasses and a hundred rounds of peppy" .44 Spl. loads. They consisted of the excellent Hornady 185-gr. XTP bullet and chronograph at an average of 1,000 fps at the muzzle. I got a decent sight picture and exercised a little marksmanship discipline as best I could and produced a "called flyer" about ½" away from the center of the target. Not too bad.

A brief inspection revealed no damage to the newly reconfigured weapon, so I emptied the single fired case from the cylinder and stoked it up with five new rounds. I ran a total of 65 rounds of the hot .44 Spl. through the gun, both with conventional loading methods and with moon clips. It was not only a joy to shoot, it was accurate to boot. I mean

At this point in my staycation I was running out of time, but I realized I'd been having a great time in my shop being creative.

gunsmithing soul Mv refreshed. All I had to do was take my functional dream gun and complete all the dehorning and extensive body work that has become the hallmark of my revolvers. I filed and sanded, buffed and polished for a full day. A couple of hours in the bead blast cabinet and I was ready to send the frame to my friend Brian Powley of Powley Engravers for a few markings to make it mine and still look a little something like Ruger might have done if they built this gun.

The final service needed after engraving to complete this project was the beautiful industrial hardchrome. There is no better finish and it will ride in my holster and get used regularly for a long time. It will be well protected and keep its good

looks indefinitely. I know a lot of you are already asking the question, if it took two guns to build this one so-called dream gun, what are you going to do with the leftover pieces? Well I have already taken care of that task and will simply say this is now a really cool 10mm with a 3" barrel and adjustable rear sight configuration. It'll be a terrific trail and predator gun for hog hunters and backpackers in mountain lion and black bear country. But what it took to do this is easily another story with even more interesting methods used to make it all work as nicely as it does. But that's a tale for another time.

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