

I know I said that I'd had fun when I started this test and evaluation. That premise was carried throughout the entire project. First we covered the basic bolt-together rifle. Next we covered the rifle with some basic modifications the average Joe could and would likely do or have done. I asked my brother, Paul, his "wish list" for such a rifle and I provided exactly what he asked for... This addendum deals with the wish list of items he requested as well as some commentary.

Paul doesn't have the budget or knowledge to justify a high end scope. He's a pretty reasonable guy and the way he explained it to me he'd rather use this rifle for his learning curve and then transfer parts and optics off it to another rifle as needed. I can live with that. Lots of us find ourselves in that spot. I still put in a plug for USO, but I noticed he swallowed pretty hard when I started pointing out a few of mine and relaying the associated costs. All the more reason to delve into budget builds as a means to figure out just what a guy needs versus what a guy wants. I only hit on this because I'm finding myself in a precarious situation. I've got a ton of money wrapped up in high end optics and they are pretty much split down the middle. Half are Mil scopes and the other half are MOA or combination MOA scopes. I've been slowly practicing and drilling myself on both in an effort to decide which I'd like to continue with. At that point, I'll switch all my scopes over most likely and enjoy the commonality.

Like many folks, I'm a proponent of buying once and crying once. However, when you're a newbie, it can be hard to properly choose and/or specify the right build for your "once in a lifetime" scope. The reticle choices alone can be hard to choose, much less FFP/SFP, magnification, size, MIL/MOA, etc.

I find that buying a unit that allows you a learning curve can be wise in some cases. The trick is to have a contingency for the scope should you finish with it, as well as a balance in actual cost.

Let's expand on that thought a bit. First you need a scope with the proper attributes so you can actually train and learn with it. For my particular type of shooting I require a reticle that allows rangefinding. This will help me hone my skills in regards to ranging, holdovers, leads, etc. Mildot scopes offer this as the base requirement. Currently there are many others that have taken the MIL concept to another level with varied and elaborate reticle designs. Frankly, there are many that are designed pretty well. I've been impressed with the supply and demand reactions within the market. I prefer external/exposed turrets capable of being "zeroed" as well. I prefer FFP (first focal plane) scopes when feasible along with magnification, size, optical clarity, etc. I have many other wishes, but sometimes you have to trade things off a bit when you're on a budget. Once you settle on a scope that may work, you have to balance the cost or have a plan for the secondary life of the scope. Basically that boils down to three choices. You can keep it right where it is, swap it to another rifle, or sell it. All three are viable options. Just keep that in mind when you begin. Some scopes do well on the used market, and some don't. Take a look at what is being sold on the used market and the prices they fetch in order to become more knowledgeable.

For this rifle my brother took some factors into consideration and chose the Falcon Menace 4-14x44 FFP unit with the ML-16 skeleton reticle. It has thus far been a really nice scope. The side focus works well and the reticle is pretty easy to use but I wished some of the mil graduations were a bit different – more subtending graduations of various size would be welcome. The clarity is good, the knobs are a bit mushy, but the clicks are still intact. It isn't huge and most of all the FFP helps so he can use any magnification to range properly. Robert Snyder at RWS shot me a sweet deal on a Menace so I snatched it up. He'd provided a couple of scopes earlier this year when I held an AR15 build clinic for customers. He sent out a couple of Falcon units for all to use and handle. It is one thing to handle one in a store, but far another to use one outside.

Dearest brother didn't understand why he needed FFP and the associated advantages... I had him range in the early AM at sun up at many different magnification settings. Then we used the same scope with full sun at the same distances at 3PM when it was a little over 100F in the shade. He started to figure out in a hurry that dialing down in magnification was necessary to do a good job at aligning his various hash and stadia markings for ranging purposes... I asked him what would have happened if he was forced to use a single magnification setting to do all that work. "Would you have performed better or worse with a SFP model?" I inquired. He answered "much worse..."

Paul also wanted a good cheek weld. I concurred. We picked up a Karsten cheek piece for this stock and fit it properly. Paul also wanted a detachable box magazine, which was formerly a bit of a problem. There are a few units out there though... The Roedale and CDi Precision employ an AICS magazine based bottom metal for the Howa 1500. This is significant in that the AICS is just about as robust a magazine for a bolt action rifle as I have seen. The \$10,000 perfect weapon has been said to be junk often when \$30 magazine fails the shooter. I picked up the CDi DBM for this project. What can I say about these two pieces? Karsten's cheek piece is true Kydex. There are some out on the market that aren't so be cautious... At the reasonable cost of the Karsten unit you can drop a few coins and be plenty satisfied. CDi's bottom metal? Super stuff. It reminds me a great deal of Badger's M5. It works just like the M5.

The cheek piece is pretty darned easy to install. If you have a drill, some masking tape, and a pen, you're in business. I prefer a drill press just to make sure everything is held still and square, but admittedly a hand drill will work. I didn't opt to boil this cheek piece as many do. Again, made with true Kydex, you can drop the cheek piece in boiling water for a bit to make it malleable. Then, WITH GLOVES, you can lay it across your buttstock to truly form fit the piece. The only reason I didn't do it you ask? Wifey was making several batches of fresh creamed sweet corn. I know because I could smell the aroma from moment I left the shop, and I could hear her swearing periodically. We have a love/hate relationship with fresh creamed sweet corn. I love eating it, she hates making it... Thus, it was a poor time to ask her to borrow the stove and a pot. It was over 100F outside and I'm quite certain it was at least 15 degrees warmer with four stock pots full of corn boiling in the kitchen. Tough luck Paul... Maybe on the next rifle.

The bottom metal was a bit tougher. This stock, as all for the Howa 1500, was designed for the hinged floorplate they offer. As such, this requires milling in order to allow the bottom metal to fit. The bottom metal has to be set to a certain depth otherwise the magazine will be too high or low in the action and won't work. I suppose a dremel tool or die grinder could work, but you'd better be pretty handy with one. I took a bit too much material off when I changed this stock to accommodate the CDi bottom metal. However, I planned all along to bed the bottom metal so I was able to make things work well when the dust settled.

The AICS mags are pretty easy to adhere to with few rules or prerequisites. Load them, and use them. There are no other rules... When using them in short magnum applications many times some lip adjustments are necessary, but with stock 308 pieces or the likes I've never had an issue.

I had used a Cactus bolt knob originally, but Paul didn't like it much. I'm not sure why and he didn't say, so I polished on the bolt handle a bit, and screwed on the Badger knob. He's easy to please most times.

I had a set of Acculock rings left over from a previous trade, but they kept growing rust as fast as I could sand it back off. I made the comment that they would work perfect for this project and Paul picked them up as he left that night. He showed up a bit later in the week with the rings. He'd blasted them, and given them a new black oxide treatment, followed by a good oiling. They looked like new, so we gave them a whirl. As it turned out, they are in fact, perfect for this...

I was pretty sure at this point he had concluded he list of demands. I knew he wanted paint, but that was the easy part. I paint a lot of rifles, and I've become pretty handy with free hand camouflage. I told Paul to take some digital pics of the areas he'd like to operate in and we'd design a paint scheme to blend him in. I figured I'd mix up some duracoat and go like hell. Not the case. He was inspecting one of my rifles and kept coming back to one with a Mac A5 stock over and over again. I saw what he was fiddling with and tried to come up with an excuse to avoid what I believed he was about to ask for... Flush cups...

Flush cups are super. They work well, take up little or no room, and allow for those handy DBM equipped rifles a means to be slung without digging a mag into your lower back all the time. I realized I really didn't have a reason to say no, so instead I told him we'd have to source some and try it. I was in contact with Kim Graham at Grovtec directly afterwards. She sent me a few sets to try out.

Grovtec's flush cups can be installed a few different ways. You can drill and thread a hole and screw them in or you can epoxy them into a drilled hole. Either way is possible. There isn't much point in threading a hole in a stock like the B&C I used. The stock filler and material won't hold the threads. Thus, I drilled my hole and used marine tex to set them after I had set my cup protrusion height. I would note that even though the flush cups have worked well there isn't a great deal of strong material holding them in. I've asked Paul to get rough with the sling a bit we'll see just how much abuse they'll take. The jury is out on that one...



I opted to relieve the stock forearm a bit so the cup could be mounted lower. This was by design. I didn't want to run the risk of drilling my hole into the barrel channel. Also, I wanted the swivel for the flush cup set to actually be able to swivel 360 degrees.



A bit of time spent on the palm swell and the forearm grip and I was finished with marine tex for the day. Paul then chose duracoat colors. He settled on snow gray for the base coat. Then we used woodland brown and desert beige over a net for the "scaled" appearance. After the mesh net was removed we used tiger stripe green, black, and desert beige for shading, accent, and overall appearance. I really wanted to paint the whole rig, but Paul wasn't having it... He said when he settles on a scope that will stay in place he wants to paint it all including the Harris bipod and sling. Fair enough...





All in all this turned out very well. It shoots well, it looks good, and most of all my brother is really enjoying a rifle of his own. We ran through another 420 rounds within a week and put it through the paces again and again. No issues, no jams, and not a single problem. I really didn't think there would be, but if there would have been with him doing the shooting, I'd never have heard the end of it...









In my opinion, this has moved past what the average budget rig means by my definition. However, it is functional and it shoots well. Really all that is missing is a top notch barrel and optics. By the time he smokes this barrel he'll be ready for the next rung on the ladder and I'll be happy to spin on a nice barrel and mount a nice scope. The rest of the rig will already be done sans paint blending.

Isn't that we really hoped to achieve by doing this to begin with???

Again, I can't take the credit here. Many people and entities were involved to help with this project. They deserve accolades as such.

Please keep them in mind when moving forward with regard to your own projects or those you have your smith do for you. My goal was to provide some insight into the path towards becoming a precision rifle shooter. I sincerely hope I helped.

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