

continued from page 39

had just touched off a case with 48gn. of reloader #7. A double charge with a cast bullet. My friend wasn't hurt seriously. He told me later that he had just charged the case when the other shooter came over to talk and he was distracted. He charged it again without checking the case.

This is just one example of not paying attention to what you are doing while loading at the bench. I have been loading at the bench for over thirty years. That includes twenty years of competitive cast bullet benchrest shooting.

I have never shot a match of ISSA, ASS-RA, or CBA competition where I didn't load at the bench while competing. In all those years I have never had a problem with safety.

The following is how I have adjusted to interruptions while I reload at the range....

When I prime the case I always double-check to make sure the primer is put in right side up. Don't laugh. I know a competitive shooter that also loads at the bench and in the heat of competition has put primers in upside down two times.

Next, if I am interrupted while I have a case in my hand, before I go back to loading I dump the case back into the powder measure. Ninety-nine times out of one hundred the case is empty but the routine is foolproof and just takes a few seconds.

Another simple way to prevent a double charge is just before dropping a charge into the case turn the case upside down, then upright again to charge. The worst thing that can happen is spilled powder on the bench which is a lot better than a double charge.

Also, if you fire off a shot but there is no bang or recoil check your barrel to make sure there is not a bullet stuck in it. You have probably just shot off a cartridge with no powder in it and the primer has had just enough power to shove the bullet part way down the barrel.

Just pay attention and you will soon find that load development done at the bench is the only way to do serious experimenting plus you will save time and cut back on waste. 🔫

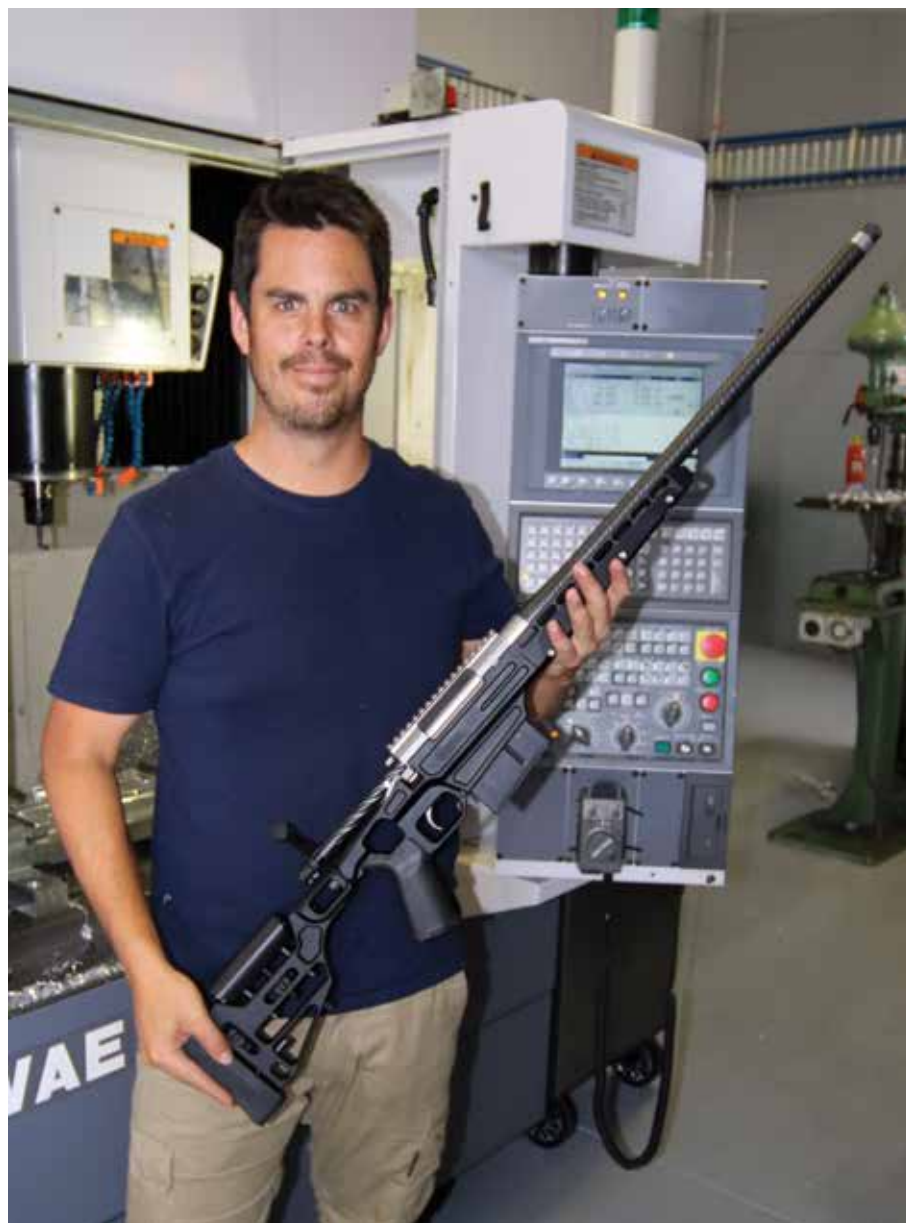


ABOVE: The Lee Loader – as simple as you can get and very portable.

GC Precision Deve

All Australian Perfection

In the Jan – Mar 2016 GUNS Australia, we had a look at an outfit put together by GC Precision Developments in the form of a Tikka 6.5x55 barrelled action fitted to a GC Precision Developments stock.



Gareth with his recently completed .300 Win. Mag outfit with a Hardy Rifle Engineering barrel – yet to be tested.

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To say that this was an impressive outfit is an understatement. Even more noteworthy was that the alloy stock was designed and manufactured in Australia by the company's founder, Gareth Crook. With a lifelong interest in shooting and a background in CNC machining working for the ANU in Canberra, Gareth took a huge leap of faith to set up a very specialised manufacturing business in the ACT.

GCPD alloy stocks are manufactured to the highest quality standards with the best available materials, including titanium, and are finished to Mil Spec standards and are priced accordingly. They will stand comparison to any similar high-performance rifle stocks from anywhere.

Since our original project over 18 months ago, we have kept in touch with GCPD and in December 2016, I received an invite from Gareth to visit his new factory premises in the southern outskirts of the ACT.

Gareth stuck a serious roadblock not long after establishing the business with an individual in the ACT firearms administration refusing to issue a manufacturing license. A lengthy court case eventually sorted that out and the company was finally able to plan for the future, after delaying the company's development program by 9 months.

This included significant investment in new CNC machining equipment and my factory visit was timed to coincide with all the major CNC machinery running in full production mode.

Given the sad state of manufacturing in Australia, it was very pleasing to see a company like GCPD expanding its production capacity and doing it without compromising the quality on which the business's philosophy was founded.

The GCPD stocks are manufactured to fit Tikka T3, Haenel Jaeger and Remington 700 actions and is also now the agent for New Zealand's Hardy Rifle Engineering products that include high-performance barrels.

If you are wondering why GCPD only makes stock chassis for three brands of bolt actions at this stage, one reason is that Gareth advised that it takes around 250 hours of programming to set the G Codes up for the CNC machines to make one chassis type and to the fine tuning to ensure perfection of the finished products.

The new CNC machine is set up to make four chassis at a time. The raw material is a block of special grade aluminium alloy that is about 500mm square and 60mm thick that is accurately located on the machine bed.



Special GCPD project – a 500m Silhouette pistol in 7mm-08 utilising the precision aluminium and titanium alloy components that make the GCPD chassis among the lightest in their class. This one weighs under 3.4kg with the muzzle brake.

Once the machine operation is initiated; all the subsequent processing proceeds automatically, including tool changes, that take less than a second for each change. The stock chassis are produced in two operations, with the machining done in two halves. Once the first 'side' is complete, the master block is turned over and the process is repeated to produce the other side of the chassis with only a couple of tabs holding the chassis in the remnants of the master block.

The complexity of the machining is evident in the photos. One reason for the high cost of the precision components is that master blocks of alloy cost over \$400 and some components produced from them unavoidably remove 70% of the metal – a high scrap rate.

After the chassis are finished, they are shipped to Victoria to a specialist anodiser who applies a military spec anodised coating to the aluminium and this provides the option of the customer nominating a colour, within the range available, to customise the chassis.



While the major chassis components are manufactured on one of the two CNC machines, some of the smaller items such as muzzle brakes and barrel sleeves are made on conventional milling machines.

The use of titanium in a number of the components used on the chassis follows another basic philosophy that has driven GCPD design, and that is to minimise weight. For that reason, a complete GCPD outfit will tip the scales at significantly lighter weight than similar tactical-style high performance rifles.

The use of state-of-the-art machining equipment makes for a very efficient operation that at this stage is a one-man show but as demand has increased, Gareth advised that he was looking to recruit an assistant – not that easy given the skill set required to operate the machinery involved.

After we came to the end of the CNC machining processes, Gareth revealed his latest creation in the form of a .300 Winchester Magnum fitted with a carbon-fibre wrapped Hardy barrel and a titanium action that had yet to be fitted with a scope and have a shot put through it, which he was planning to do in the coming January.

With a bit of luck, we hope to have a review of this very impressive outfit for a coming GUNS Australia. It is great to see locally designed and manufactured products for shooters that are world class in quality and performance.

For more information on GC Precision Developments products and services, have a look at its web site at gcpdarms.com, by mail at PO Box 5143, Chisholm ACT 2905 or Mobile: 0421 353166 or Ph: 02 61540948. 🗡️

GCPD'S latest CNC machine in action working on 4 chassis units.