

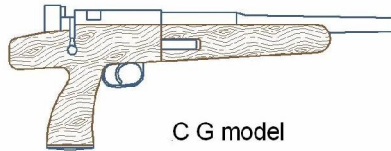


WYVRN CSTGS, LLC

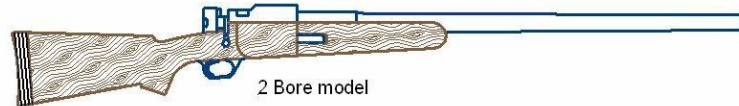
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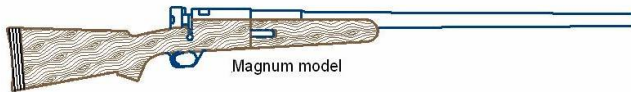
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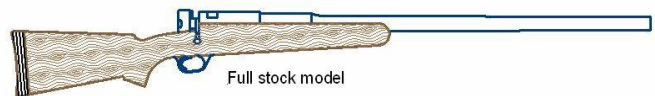
C G model



2 Bore model



Magnum model



Full stock model

The Wyrn Bolt Action Rifle/Pistol system:

A few of the many possible variations of our new bolt action system are shown in the drawings above. Receiver ring diameters vary from 2.375" for the 2-bore model to 1.000" diameter for the smallest model.

These actions include but are not limited to the following features:

1. All actions can easily be constructed from solid bar stock.
2. Fixed or quick take down (QTD) interchangeable barrels.
3. It may be used to build a rifle, pistol or a combination gun.
4. Barrel lock is easily adaptable for most (if not all) all commercial firearms.
5. Barrels may be centerfire (rifle or shotgun), rimfire or muzzle loading.
6. Any size up to 2 bore without excessive receiver size or excess weight.
7. Interchangeable, quick change (QC) bolt faces.
8. Adjustable bolt face for headspace adjustment
9. Bolt cams eliminated for ease of construction.
10. Side mounted bolt release eliminated for ease of construction.
11. Ambidextrous, (reversible) bolt handle.
12. Interchangeable firing pins.
13. Adjustable firing pin.
14. Three position safety
15. Receivers may be round or octagonal.
16. Built in scope mounting bases are optional.
17. Single shot only, no magazine or ejection port is required, resulting in a stronger action.
18. Uses standard Mauser trigger assembly or any commercial replacement.
19. Uses standard Mauser trigger guard or any standard commercial replacement.
20. Uses standard Mauser firing pin spring.
21. Uses classic, thumbhole or rear mounted pistol grip stocks.
22. Center mounted pistol grip stocks are optional.
23. Standard trigger assembly easily altered for center mounted pistol grips.
24. Center mounted trigger easily adjusted to eliminate creep.

25. Trigger guard for center mounted pistol grip easy to build and functions as bedding block.
26. Stocks may be fixed and yet retain the interchangeable barrel feature.
27. Forends for quick take down stocks may be made interchangeable if desired.
28. Custom trigger guard for center mounted pistol grip easy to machine.
29. Action may be built with or without bolt
30. All components are easily built from solid bar stock. No castings are required.
31. In its simplest form, the fixed barrel version and the boltless version only require the manufacture of 8 components.
32. Barrel adjustment in the event a barrel ever "shoots loose" (a problem which may be encountered with ANY interchangeable barrel system) is easily accomplished.
33. A new cartridge design for use with the smallest version which is easily machined from brass bar stock by the builder.

In the features list above and the clarification notes below, Mauser refers to any '98 Mauser bolt action or its derivatives. Most of the features may be used to produce a "system" capable of assembly into several styles of pistols, centerfire or rimfire rifles, shotguns or muzzle loaders. The terms Quick Down and Quick change mean exactly that. These components may be changed in the field in seconds without the use of special tools.

The lockup mechanism is normally built to allow the forend to be removed along with the barrel. No complex fitting is required. Forends may be built for quick change between barrels or one may be made for each barrel. Slight alteration to the mechanism will allow the use of one-piece stocks. This will eliminate the QTD feature but still allow the use of interchangeable barrels.

While the takedown mechanism is easy to adapt to virtually any existing firearm, cartridge selection for most (if not all) currently available bolt action rifles or pistols are limited by the size of the bolt face. Our new design incorporates a replaceable QTD bolt face, which allows the use of any cartridge size. This bolt face is designed to allow easy headspace adjustment. Any adjustment to the position of the bolt face may require adjustment of the position of the firing pin nose. This adjustment is built in and is easily accomplished with simple hand tools.

Machining of all the components are done using a milling machine and lathe. Most of the components are fairly simple projects. The most complex item to machine will be the receiver. It will be much easier to accomplish the majority of this machining with the use of a dividing head. Machining the receiver from bar stock also provides the opportunity to machine them round or octagonal with integral scope mounting bases if desired.

Most (if not all) existing bolt action rifles have cams built into them to allow camming the bolt so as to easily cock the action. These cams are generally "buried" inside the front end of the action and are difficult to produce by the home builder without a lot of knowledge, and the use of special tools...which generally need to be made by the builder. These cams are not necessary and have been eliminated for ease of construction.

Along with eliminating the cams, the side mounted bolt release used on the Mauser has been eliminated for a "cleaner" appearance. At the same time, to produce a true ambidextrous action, the bolt handle has been made reversible. Change over of the bolt handle, while not quick change, may still be done easily in the field with a minimum of time and effort. The lack of need for a cutout for a magazine box and ejection port also reduces machining time as well as providing a stronger action.

This action incorporates a three-position safety. However, for additional safety we recommend the use of a hammer blocking safety available on one of the commercially available adjustable trigger mechanisms.

The construction of the rear and bottom of the action is identical to the Mauser action. Thus, any existing commercial retrofit component can be easily installed as is or modified to suit depending on the action length desired. For youth models or for use with small diameter cartridges only, the action can be kept to about 6 inches overall length and have a reduced receiver diameter for reduced weight.

The standard Mauser trigger assembly has been modified for those wishing to install centrally mounted pistol grips similar the "XP". This assembly has been made adjustable to eliminate the trigger pre-travel inherent in the Mauser design. A custom trigger guard has been designed to use with this assembly. This guard may also serve as a bedding block when properly installed.

In it's simplest form (a fixed barrel firearm) only 8 components need to be made. The most complex of which will be the receiver. All other components are easily made using standard shop machining practices.

This action may be built without the bolt. In fact, for a 2 bore sized action, the use of the bolt is not recommended. The two bore action is generally only for use as a muzzleloader or with black powder cartridges. The large diameter of the bore would lead to excessive size and weight if a bolt was included. Not using a bolt, reduces the overall length (and consequently the weight) of the receiver considerably.

We are not sure yet whether to provide these actions in kit form or simply produce plans in book form. In kit form, they might become expensive due to the large number of special molds required to provide all possible receiver sizes and variations. A book of plans would take a while due to all the various options that would need to be drawn but would still be quicker and cheaper for the builder. On the other hand, it may be possible to provide components, semi-finished kits or even finished actions machined from solid stock using modern CNC technology. This would provide the benefit of being able to produce them "on demand" as "custom" products with standard pricing. We hope those interested will take the time to complete our survey. This survey will enable us to make the necessary decisions to initiate production.

Thank you for your interest.

Gordon Robertson
WYVRN CSTGS LLC