



MANSON
PRECISION REAMERS

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Instructions for the Manson Bolt Face Truing Kit

The MANSON Bolt Face Truing Kit is designed to help the riflemith true the boltface in Rem. 700 actions with greater precision and in less time than was previously necessary. When used in conjunction with our Receiver Reamer, Tap/Mandrel and Recoil Lug Reamer, greater profits can be realized due to the tremendous times savings over previous methods.

The Bolt Face Truing Kit consists of a precision fixture (Tooling Block) and various face-cutting carbide burrs (Face Burr). The precision drill bushing in the Tooling Block locates a carbide Face Burr of the correct size square and concentric to the boltway in a trued action. The bolt, having been lapped-in to the receiver lugs, will then have its face machined square and concentric to the boltway by the Burr.

Please Note: Because the Tooling Block locates off the front receiver ring, the receiver threads, front ring and locking lugs MUST be trued, and the bolt lapped-in to the receiver before using the Block and Burr. Squaring the bolt face is the last machining operation in truing a receiver and bolt for accuracy purposes. If the previous operations aren't done, machining the bolt face in the manner to be described will not result in the optimal degree of accuracy.

Tools Required:

- Manson Tooling Block—one Block is used with any Face Burr of the appropriate size—available for 223, PPC, 308, or Magnum head sizes.
- Large (5" minimum opening) Bench Vise
- Brownells Action Wrench; p/n 080-800-700 for Rem 700
- Variable-speed Drill Motor
- Good Quality Cutting Oil (Brownells Do-Drill)
- Wrench to fit flats on Tooling Block

This operation can be done differently, with different tools. The tools and procedures outlined here are known to produce good results.

Machining Steps:

Place a stripped, trued and lapped receiver in the Brownells Action Wrench and hold the Wrench in the Bench Vise with the receiver horizontal. Screw the Tooling Block into the receiver threads and tighten it snugly—don't overdo it—against the front receiver ring with a suitable wrench. Strip the bolt completely except for the extractor. Apply Dykem or machinist lay-out fluid to the face of the bolt. Allow it to dry, then put a small amount of cutting oil on the bolt face. Fit the Face Burr under the extractor as you would a cartridge—the extractor should hold the Burr in place. Carefully slide the bolt, with the Burr under the extractor, into the action. The shank of the Burr must go through the bushing in the Tooling Block and the bolt must go into battery position with its handle fully down.



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At this point, the bolt lugs must be held securely against the receiver lugs—just as they would be when the rifle is fired. This can be accomplished by shimming to O.D. of the bolt (wedging it in place), or using a set screw through the underside of the receiver against the bottom of the bolt. You want to hold the bolt in the same position to which it was lapped-in.

Turn the shank extending through the Tooling Block to confirm it isn't bound up and apply some oil to where the shank runs through the Block. Tighten the chuck of the Variable-speed Drill Motor on the shank of the Burr. Slowly (approx. 150 rpm) drive the Burr, pressing it firmly against the face of the bolt.

Stop after 5-10 seconds to check your work: Un-chuck the drill motor, unscrew the Tooling Block, remove the Burr from the bolt and check to see if its face has cleaned up. If it hasn't cleaned up completely, you'll have to cut a little more. The Burrs are made with fine flutes and will not cut very quickly. Even so, it is much better to go slowly than to take off too much.

When the bolt face has been cleaned up to your satisfaction, dis-assemble your set-up and remove all chips. The Burr will produce a smooth, but not polished finish. If you do polish, be careful to do so evenly and not remove so much metal that the relationship of the bolt face to the rest of the action is changed. **You must also check that firing pin protrusion is proper and does not exceed factory specs—don't risk a pierced primer!**

These tools, like all tools we manufacture, are guaranteed against defects in material and workmanship. If you have ANY questions about their use, or suggestions as to how they could be improved, please call or write us. IT'S BETTER TO ASK A QUESTION THAN TO RUIN AN EXPENSIVE TOOL OR A CUSTOMER'S ACTION!

