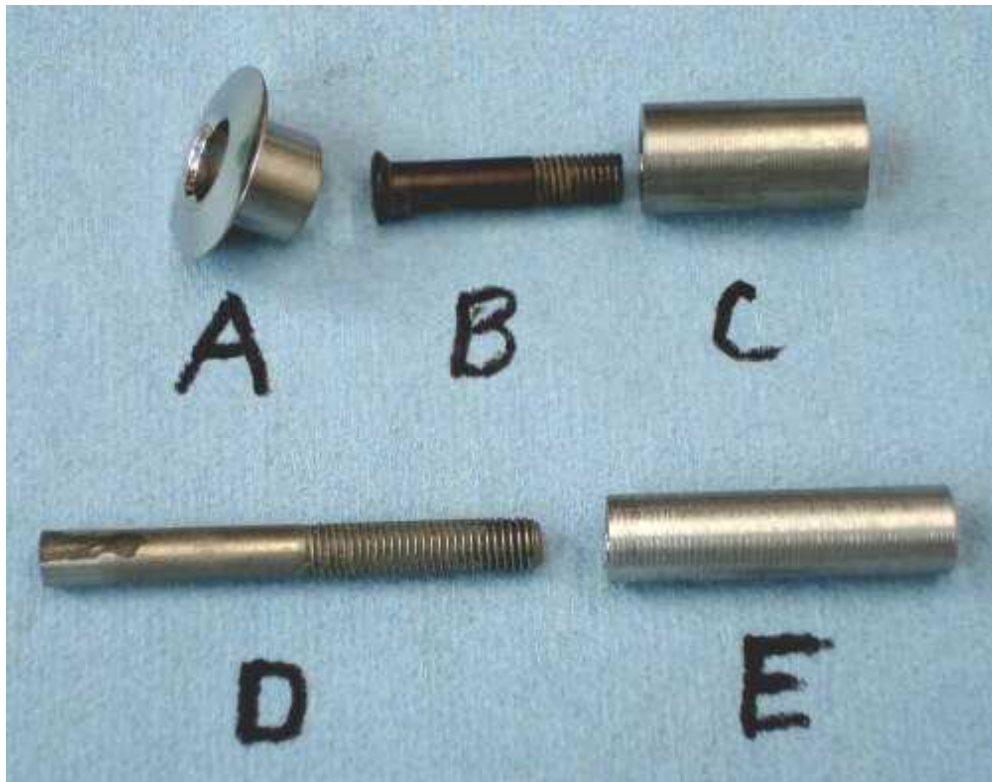


# PILLAR BEDDING WITH RICHARDS CUSTOM RIFLES CUSTOM PILLARS

( See our DVD on stress-free pillar bedding )  
( You can view the work being done )  
( Many more tips )

The stock in the pictures has 2 front pillars with the middle pillar sitting under the front of the guard

PICTURE # 1



In picture # 1 you will see part A, the bottom part of the front pillar which we call the “escutcheon”. Part B, which is a 1/4” X 28 action bolt that is slightly longer than part C which is the top part of the front pillar. The 2 parts of the front pillar was made as one piece and then the escutcheon was cut off just below the shoulder that is inside. This shoulder is for the head of the action bolt to tighten up against. Part D is a 1/4” X 28 hex head bolt with the head turned down to 1/4” which permit’s the insertion of a hex head driver to tighten and remove the bolt. This headless bolt will be inserted in the rear tang hole of the action and part E, the rear pillar will be placed on it.



Pic # 2

Showing tape on recoil lug, pillars bolted in place & putty in voids. Release agent is polished to a very thin layer

The top half of the front pillar (part C ) is placed on the action receiver ring and the bolt ( part B ) is inserted thru the pillar and tightened against the action. This bolt must have a tapered head on the underside so as it is tightened it will center the top half of the front pillar around the action bolt hole. (same for the middle pillar if the action has a middle bolt)

The headless bolt is inserted into the rear tang hole of the action and the rear pillar is slipped down on it. You will notice both pillars have the hole drilled oversize so that a 1/4" bolt has a little space around it. (I like to drill the pillars with a .260" bit inside)

The above scenario is the placement of the pillars prior to applying the "Mud" Devcon 110110 is the bedding compound of choice as the mud must set up as hard as concrete as most other epoxies will not do this. Also Devcon shrinks very little if at all.

Picture # 3

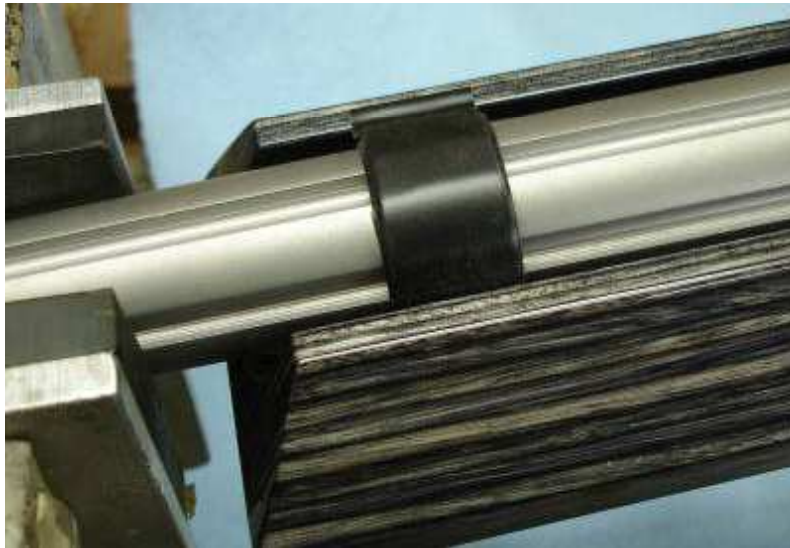


Picture # 3 shows the wood removed from the inside of the stock bedding area. Remove enough wood everywhere except along the top sides of the stock to allow at least 1/8" to 3/16<sup>th</sup>" of room for the mud. Remove 1/4" of wood behind the recoil lug. I like about .012" clearance on the top inside edges. Leave a small area of original wood just behind the rear tang bolt hole as this wood will determine the elevation of the bedded action in the stock.



Pic # 4 Elevation wood left at tang. Be sure to leave some original wood for the action tang to sit on. (important)

Picture # 5



Tape on barrel

Picture # 5 shows the barreled action in the vise. It also shows black electrical tape wrapped around the barrel just behind the front of the stock forearm. Wrap enough tape that will hold the front of the barreled action at the proper elevation in the stock. The idea is that the barreled action does not touch **anything** except the bit of original wood left at the rear tang (behind the pillar) and the forearm resting on the electrical tape. This is **very** important to obtain 100% stress free bedding. You want the bore of the barrel to be parallel with the top edge of the stock so wrap just the right amount of tape to ensure this. The tape also centers the barrel in the forearm.

## APPLYING RELEASE AGENT AND PLUMBERS PUTTY

Picture # 6



Putty & release agent before polishing, tape on lug

Remove the trigger, bolt release and spring and anything else from the bottom of the action.

Clean the action and recoil lug area with brake parts cleaner or degreaser. Apply plumbers putty to any hole or crevice that you don't want the mud to get into. Wrap 2 layers of masking tape to the outside edges of the lug and trim with a razor blade. Do not apply tape to the front or back of the lug. (apply tape to the **front** of the lug only if you do not have a way to remove the hardened mud). Let this tape go right around to the top of the action. Wipe the putty smooth with the brake parts cleaner. I highly recommend Kiwi shoe polish as release agent. Apply liberally to the entire action using a Q-tip to get in around the lug, bolt handle slot and loading port edges. Let the shoe polish dry for 10 minutes and then use a paper towel and **buff** and **polish** the release agent as thin as possible. You want any release agent to be as **thin** as possible so as to let the action set as close as possible to your bedding.

Now is the time to place the pillars. Screw the top half of the front pillar and middle pillar (if the action has a middle bolt) to the action with the tapered head bolt. Screw in the headless bolt and slip the pillar down around it. Apply release agent to the area of the guard around the rear bolt hole top and bottom and inside out. We don't want it stuck to the bedding.



(This guard is sitting on the bolt head that is securing the middle pillar to the action. We need the guard in place to align the action in the stock.)

Install the trigger guard back in its place on the stock as this is going to align the barreled action in the stock. Here is the time to make a trial run to ensure that everything fits properly. Slip the upside down stock down over the pillars with the headless bolt coming up thru the rear bolt hole in the guard. Ensure that the stock is resting on the tape out on the barrel and on the little bit of wood you left behind the tang bolt. Ensure there is room everywhere around the action to accept the mud. The barreled action cannot be touching anywhere except the tape and the tang. Not even on the top edges of the stock.

### APPLYING THE MUD

Picture # 7 mud on the pillars



Mix up a generous portion of the mud (Devcon) and apply as pictured to the pillars. Do not get mud on top of the bolt head and front pillar. Do apply a little mud on top of the rear pillar and if a little gets on the headless bolt that is ok as you surely applied release agent to this bolt. This will properly bed the guard to the rear pillar. The front bolt that holds the front pillar need not have release agent applied to it. You cannot use too much mud as the hydraulic action of pressing the stock down on the barreled action is going to squeeze the mud everywhere it need to go and the excess will be forced out. (falling on the floor for you to step in)

Now apply the mud very generously to the stock. If I am not bedding any portion of the barrel shank I will only apply a little mud behind the recoil lug area.

Picture # 8



Now slip the upside down stock down over the pillars as you did in the trial run. Ensure the stock is bottomed out on the tape at the front end. Squeeze slowly pressing the rear of the stock down and squeeze out the excess mud. Stop a time or two and using q-tips clean off the mud that is squeezing out underneath.

Cut a piece of paper towel about 2 “ wide by the length of the towel. Lay this on the stock 1 ½” in front of the action. Wrap black electrical tape around the stock and barrel on this towel. The towel is to protect the stock finish. Squeeze the stock and action together while taking wraps with the tape. If you have a skinny thin pencil barrel do not apply too much pressure with the tape as the weak barrel can be curved slightly causing the barrel to maybe touch the stock when everything is done. If you have a honking big fat barrel do not be concerned of bending the barrel. Whatever curve you put in a barrel will spring back when the tape is removed.

Using Q-tips, clean up very good around the front pillar and the bolt head as you have to be able to unscrew the bolt to part the stock from the rifle and you do not want the bedding protruding above the pillar as the escutcheon still has to have room to fit in there without touching the end of the pillar. Before turning the rifle right-side-up, reach under with a few Q-tips and clean off the mud hanging there as it may get inside the action. Turn the rifle right side up in the vice and using lots of Q-tips clean all of the mud off of everything and everyplace you can see it. Use a paper towel to wipe the stock as there could be some invisible mud hiding somewhere on the stock or action.

Picture # 9



Upside down rifle ready to turn over

Picture # 10



Right side up rifle with the mud squeezed out

Lie the rifle upside down with the weight on the rear of the action and about where the tape is on the barrel for about 8 to 10 hrs. or overnight.

## Installing in the Escutcheon

After the mud has set up and hardened clamp the rifle by the barrel upside down in the vise just ahead of the forearm. Remove the bolt that in the front pillar (and middle pillar) and the headless bolt. Remove the trigger guard.

With the left hand apply upward pressure to the forearm and then with the righthand slap upward on the forearm. You will hear a crack like you might have busted the stock. Not to worry, it is the bedding popping free. Now wiggle the stock up off the recoil lug as it is the only thing holding the stock down.

Remove the tape from the barrel and recoil lug and clean up the putty. Wipe the action down with brake parts cleaner. Remove the squeezed mud that went into the trigger and bolt release area. Relieve the lug area on both sides and the front. Lay the stock back on the barreled action. Be sure to check under the guard to see if any cleanup of mud is required there and re-install the guard. Put in the rear action bolt just snug and not tight. Have a trial run at getting the front bolt length proper by placing the escutcheon in the hole and screwing in the bolt. Loosen off the back bolt to see if the bolt that is thru the escutcheon is holding the stock firmly in place. Retighten the rear bolt a wee bit. Apply release agent to the front bolt being careful to not get it on the escutcheon. Insert a allen wrench into the head of the bolt so you can hold it easily. Slip the escutcheon over the bolt. Apply mud to the escutcheon and around the bolt. You want enough so when you tighten the bolt it will force the mud everywhere it needs to go, even though a bit will be squeezed in around the bolt. Clean up the excess mud with Q-tips and paper towels. Now let the stock lay for another 8 hours or so to allow the mud to harden.

Picture # 11



Mud under the escutcheon

After the mud has hardened around the escutcheon clamp the rifle back in the vise. Remove the back tang bolt first then the front bolt that is through the escutcheon. The bolt will be tight in the hole and sometimes may need to be punched out with a punch unless it has threads right to the head in which case it will screw out. Go in the hole with a .260" bit and clean the mud out of the front pillar. Let the bedding harden for a day or two and then torque the bolts with about 35 inch lbs of torque on the front bolt and maybe 25 on the tang bolt. You have now stress free pillar bedded your stock and it should look nice with no voids in the bedding.



Showing the escutcheon & bolt with proper amount of mud.  
Bolt is sitting on an Allen wrench



Mud cleaned up



No voids, no air pockets, a great job

Richards Custom Rifles  
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