

Giraud Tool Company, Inc.

Giraud Powered Case Trimmer

U.S. Patent #6,484,616



Description and Instructions for Giraud Powered Case Trimmer

The Giraud Powered Case Trimmer is designed for the quality conscious shooter or reloader needing a dependable medium volume case trimmer for bottleneck rifle cartridge cases. This trimmer will provide the user with the best equipment available for uniform trimming and chamfering of rifle cartridges outside of a military type arsenal.

The trimmer comes complete and ready to use, set up in one caliber. Presently, there are over 175 different available sizes. A list is shown on the last page of this Instruction manual. Additionally, if you have a chamber reamer for other wildcat sizes, they can be accommodated by finishing a blank case holder with that reamer.



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The trimmer comes complete in one caliber as it leaves the box. Set the trimmer on a sturdy, level surface and examine for any signs of damage from shipping. If any are found, contact Giraud Tool Company, Inc. (GTC) as soon as found. Together we can determine if the trimmer can be fixed or needs to be returned to GTC for repair. GTC will repair or replace these trimmers for the original purchaser for life. If the parts or problems are determined to be due to defective parts GTC made, GTC will repair or replace them free of charge. If the parts or problems are determined to be due to defective parts not made by GTC, such as the motor or switches, GTC will replace them for you at cost or as inexpensively as possible. Unfortunately, GTC cannot control somebody else's products against defective parts or material. GTC will get the trimmer fixed for you as best as possible, no BS, simple as that.

Once the trimmer is setup on a sturdy work surface with the trimmer shaft horizontal to the floor, plug the power cord in and make sure there are no hazards around the trimmer. Check and make sure the power cord does not touch the rotating pulleys or belt. Make sure there are no liquids around the trimmer that could cause problems with the electric motor or switch. See Fig. 1 below.

Each trimmer is sent with a sample case attached to the sheet metal in a small ziplock style bag with the caliber noted. This case was the last case trimmed with that specific trimmer before being packaged for shipment. There are also two spanner wrenches enclosed in the white foam packing material on the right side of the shipping box. There is usually some marking to help locate these wrenches before discarding the shipping box.



Figure 1 - Trimmer setup and ready to use.

Examine the sample case to see what a proper trim and chamfer looks like, and measure the case to determine what length the trimmer is currently set for. Turn the power switch on and verify the motor works properly and runs without undue vibrations or noises. If everything appears okay, you are ready to proceed with trimming some brass. If the case length of the sample case is longer or shorter than your desired length, you can adjust it at this point using the spanner wrenches provided. Each trimmer unit is now provided with engraved witness marks on the front face of the trimmer body. Each of these marks are located around the case holder at 45° increments. If you mark the face end of your threaded case holder with a marker or felt tip pen, you can determine how far the case holder is twisted in or out by comparing the witness marks on the trimmer to the mark on the end of the case

holder. Rotating the case holder from one mark to another (45°) will move the case holder approximately 0.009"

With some of your older or scrap RESIZED cartridge cases, trim a few cases to check out the operation of your new trimmer. Insert a case into the shell holder and press the case into the trimmer blade while the machine is running. If the motor is bogged down or stops, the speed at which you inserted the case is too fast. Gently but firmly will do, you don't have to jam it in there. As you press into case holder, you will feel the vibration as the carbide blade removes material from the case mouth, when it stops, simply twist the still inserted case with your finger tips to even out the freshly cut surfaces.

Check the case mouth on your first case. You should see the case mouth bright and shiny where the brass has been trimmed. If the case mouth is not uniformly trimmed around the entire diameter, it is because the runout between the cutting blade and case holder are just slightly out of alignment or the case neck is not concentric with the case body. It only takes a thousandth or two to cause that. But you can easily correct or overcome this by twisting the case a half turn or more while the case is touching the rotating blade. As the case rotates and blade rotates, the entire case mouth makes contact with the entire travel of the blade. It sounds more complicated than it really is. Just give them a twist and they come out pretty uniform.



Figure 2 - A properly trimmed case has a chamfer that is even and smooth around the entire case mouth, both inside and outside.

Next, check your overall length of the trimmed case with a caliper. I will set the length fairly close, but it will really depend on how you size your brass. Since the case trimmer locates each case by the case shoulder, if your headspace dimensions on the resized brass are not consistent, then the case can't be trimmed to a uniform dimension. I suggest the use of some type of headspace measuring device to monitor your resizing operation. Several different brands of tools are available from Stoney Point, Midway, Neal Jones, Sinclair, and RCBS, just to name a few. The simplest device

mounts to the jaw of your dial caliper and lets you measure the consistency of each case quickly and easily.

Using the Trimmer

Trim and measure three cases. If your dimensions are within +/- 0.002" on the overall length, you are in the ballpark. With a little use and consistent technique, your cases should come out within 0.001" of each other, every time. If the overall length you measured is the length you want the finished cases to be, you are ready to trim some brass. If the length is too long or too short, loosen the jam nut

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on the front of the trimmer and twist the case holder in towards the blade to shorten the cases, or out away from the blade to lengthen the cases. Using the witness marks engraved in the face of the trimmer body, each 45° of case holder rotation will change the length 0.009". Tighten the jam nut and try a few more cases. Repeat the process as necessary. Once the case length is set, rotate the trimmer onto its bottom. In the new position, the trimmer shaft will be vertical. See Fig. 3.

The trimmer case holder is spring loaded as a safety feature to prevent the case mouth from contacting the blade until the user is ready to trim cases. The case holder is made up of four separate parts that are used as a single case holder. The outer body of the case holder threads into the trimmer body and is adjusted to control overall length of the trimmed case. The inner sleeve of the case holder is contoured with a chamfering reamer of the appropriate caliber to hold the case. A light compression spring is held captive between the two parts and forces the inner sleeve away from the cutter until pressure is applied to a case as it is inserted into the case holder. A small internal snap ring contains the inner sleeve inside the outer body of the case holder. See Fig. 4 and 5.

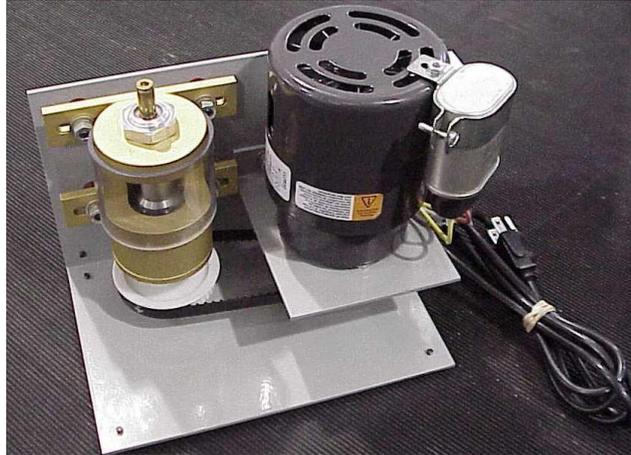


Figure 3 - Old style trimmer (without belt guard) rotated onto its base, ready to trim cases. Note that this view shows the side of the trimmer that would normally face away from the user during trimming.



Figure 4 - Case inserted into the case holder, but not depressed against the compression spring,

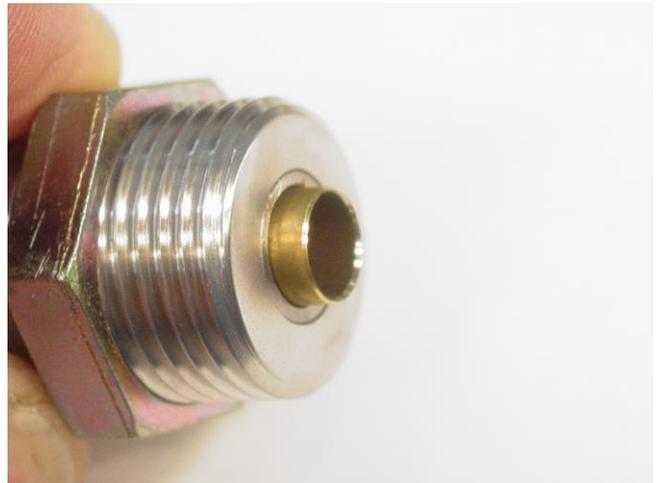


Figure 5 - Case inserted into the case holder, and fully depressed against the compression spring,

Cleaning the Trimmer

In normal use, this is a very low maintenance assembly. Just a drop or two of light oil will keep the inner and outer sleeves moving easily. If too much oil is used, it can lead to unintended problems. Oil can migrate into the inside of case while it is being trimmed and possibly harm the powder charge or primer yet to be installed. It can also just make a mess. Excess oil can attract shavings, dirt, and grime requiring more frequent cleaning and maintenance of the unit. Use the oil sparingly.

After trimming cases, you may want to empty the trimmer of accumulated shavings. To do so, simply carry the trimmer over to your trash can, and slide the clear lexan cover back over the trimmer body, and dump the shavings out. Using a small brush, stubborn chips can be removed from the trimmer and dumped in the trash. If you have access to a shop style vacuum cleaner, sucking the chips out of the trimmer is the cleanest and easiest method. But don't blame me if you use the better half's house vacuum cleaner and get caught doing it. If you want to further clean the trimmer, use a can of compressed air to blow the remaining shavings out of the trimmer body and off the base, but take care not to directly spray compressed air toward the bearing seal. **Do not use a high pressure air compressor to blow chips out.** This could cause chips to be driven past the seal into the ball bearings and lead to premature bearing failure. Use care to protect your eyes and exposed flesh from any flying debris. Those little shards of brass can get everywhere.

Adjusting the Trimmer and Changing Calibers

To change the trimmer from one caliber to another, say .223 to .308, the case holder must be changed and the trimmer blade must be adjusted. The case holder is pretty straightforward to change. Loosen the jam nut on the front or top face of the unit and back the holder out. Insert the new holder into the trimmer body until the holder is close to touching the trimmer blade, within about 1/16" of the blade.

Next, using a 5/64" hex key, loosen the set screw holding the trimmer blade in the shaft. Insert a resized case of the new caliber into the shell holder and roughly position the blade so the case wall falls directly into the "v" of the blade. Making sure the blade is firmly against the bottom of the shaft recess, tighten the set screw holding the blade in place. Unscrew the shell holder until a case just barely touches the new blade. Turn the motor on and try trimming a case. I suggest using some of your scrap brass (the ones with the dented shoulders, just about to separate at the head, loose primer pockets, etc.) because you will probably not get the final adjustment right the first time. It may take 2 to 20 cases to get it just where you want it. As you do this more often, the number of cases used should diminish to the point it only takes a case or two to adjust the cutting blade.

For best results, insert the case into the case holder and then give it a half turn while still firmly in the case holder. This will make sure that the cut is even all around the case mouth. The trimmed case should have metal removed from

both inside and outside. You can check just how even this is by running your fingernail along the outside of the case from the shoulder to the case mouth. If you feel a slight burr on the outside of the case mouth and it doesn't look like enough metal was removed from the inside, carefully loosen the set screw on the trimmer shaft and move the blade to the outer edge of the shaft by a few thousandths of an inch. In most instances, the majority of the metal removed will be on the inside. The only necessary metal removal on the outside is to remove any burrs, anything more is not really functional or buying you anything.

It really doesn't take much movement. Usually you can loosen the screw and move the blade out and try to get it right back in the same spot, and it will be in a slightly different spot. Another method is to loosen the set screw and tighten it back just touching the blade, then tap the new blade with a small pen or other small pointed object to move it left or right ever so slightly. Tighten the set screw firmly, turn it on, and try another case. When you get it right, the case will have a bright clean trimmed surface on the inside of the case mouth that extends into the case about 1/32" deep (a little more than half the thickness of a credit card edge) with no burr on the outside of the case mouth. As a tip, leaving the jam nut loose, you can wiggle the case and case holder assembly a few thousandths to make fine adjustments to the blade position without knocking the blade way out when trying to make the last fine movement.

Once the case chamfers are set, measure a few cases and determine if the case length needs final adjustment as well. Remember to loosen the jam nut and unscrew the case holder to lengthen the case, and to screw in the case holder to shorten the case length. Once the length is set, tighten the jam nut and flip the trimmer vertical again to begin trimming your cases.

Interchangeable Head Feature

All new trimmers (after August 2003) are furnished with the ability to swap out the cutting head as well the case holders. This allows the user to keep a dedicated case head for each caliber they choose to trim, thereby reducing or eliminating

the need to adjust the cutting blade every time the caliber is changed.

Older versions of the Giraud Power Case Trimmer can be updated to gain this feature if desired, contact GTC for details if interested. See Fig. 6.

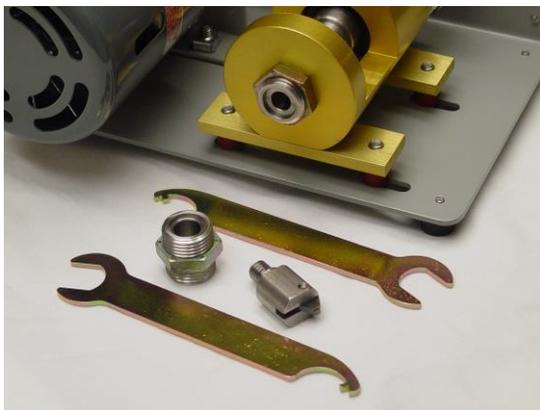


Figure 6 - Case holder, interchangeable cutting head and spanner wrenches shown with trimmer.

To remove the cutting head, first remove the case holder from the trimmer by loosening the lock nut and unscrewing the case holder from the trimmer body. Then using the provided spanner wrenches to hold the shaft and cutting head, loosen the head from the shaft. The cutting head is attached with a standard right hand

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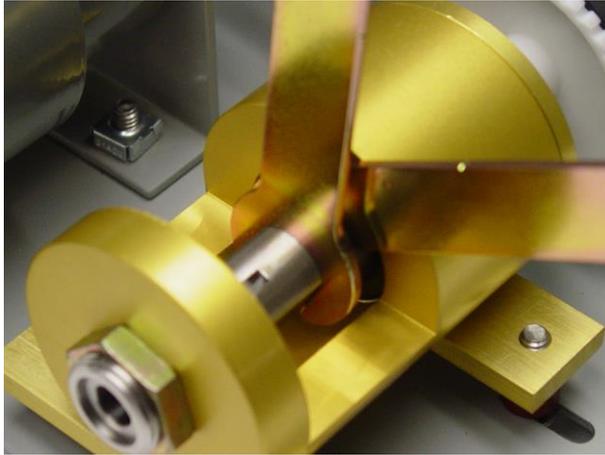


Figure 7 - Case holder, interchangeable cutting head and spanner wrenches shown loosening tightening the cutting head.

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thread. If you are looking at the cutting end of the shaft, turning the head counter clockwise while holding the shaft will loosen the head for removal. Turning the head clockwise will tighten the head for installation. As the unit operates, the cutting forces act to tighten the cutting head to the trimmer shaft. It will not spin off in normal use, so there is no need to apply dramatic torque to the cutting head during replacement. Do not over tighten when installing, a snug fit is all that is necessary. Over tightening will

only make the unit more difficult to remove later and provides no additional stability to the operation.

Meplat Trimming Feature

The ability to clean up the meplat surface of match hollow point projectiles can result in better accuracy at long range. Because of this, several manufactures offer device to trim or uniform the meplat surface of bullets. The Giraud Powered Case Trimmer is among them. To trim projectile meplats, additional parts are needed and described below.



Figure 8 - Meplat cutter head with carbide end mill.

A cutting head with a carbide end mill replaces the case trimming cutter head using the interchangeable head feature. Only one meplat cutting head is required to trim meplats of any caliber projectiles. It is installed using the same spanner wrenches and process described above for case trimmer cutting head changing. See Fig. 8.



Figure 9 - Meplat projectile holder with projectile inserted.

A projectile holder is required for each specific caliber diameter projectile to be meplat trimmed, i.e. .22 caliber, 6mm caliber, etc. This projectile holder is constructed of the same basic parts as a cartridge case holder and is installed in the trimmer in the same way as a cartridge case holder, loosen the jam nut, remove the previous holder, install

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the projectile holder, adjust for length, and tighten the jam nut. Projectiles can be trimmed in either loose projectile or loaded round configurations, depending on your preference.

Adjustment of the trim is best described as the least amount of metal removed from the projectile tip until the entire surface is uniform. Typically this is between 0.005" to 0.020" in length of the projectile.



Figure 10 - Meplat trimmed projectile, showing uniform trimmed surface.

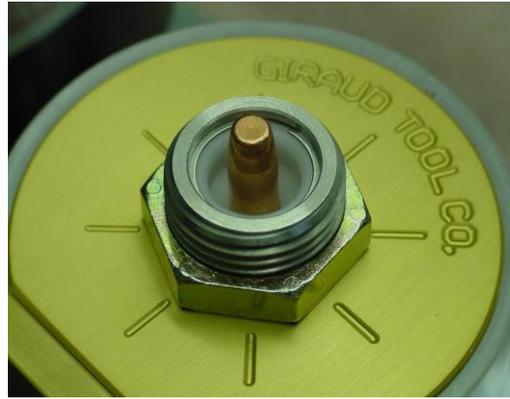


Figure 11 - Meplat projectile holder with projectile inserted into trimmer body.

Tips, Tricks & Special Requests

Flipping the trimmer vertical allows you to let the brass shavings naturally drop away from the cutter and shell holder. If you use the trimmer horizontally, eventually you will get shavings inside the case holder. With shavings in the case holder, the index for the case shoulder is no longer true. Your cases will come out longer by the same length the shavings prevent the case from entering the case holder.

Older trimmers with the light gray color Dayton brand motor have a slot at the 3 'clock in the shield covering the body of the motor for a lubrication point. Once in a while, put a few drops of light motor oil or '3 in 1' type oil in there to lubricate the bearings on the motor and keep you trimmer working smoothly. Don't flood them every time you use the trimmer, but just a couple of drops every one or two thousand cases. For me, that's about every other time I use it.

New trimmers, delivered after August of 2003 use a black Fasco or Dayton brand motor of the exact same size and ratings. The difference is that these newer black motors have fully sealed ball bearing supports for the motor shaft and need no oil of the life of the motor.

For users that require 220V 50Hz electrical motors, these are available with the appropriate power cord for most international connections. Contact GTC with specific country requirements when ordering. An additional fee is required for the special motor and cord and switch, but usually only \$90.00 USD.

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Special calibers not listed on the front of this bulletin can be accommodated most times, call or email for specific calibers. Additionally, blank case holders are available for wildcat users that have access to chamber reamer for their specific caliber. These are available, complete with detailed instructions and drawings from GTC.

Case holders for neck sized only cases are available by special order. You must send me three neck sized cases to be used with the trimmer so I can fit a case holder to your brass. Contact GTC for further details if interested.



Figure 12 - Freshly trimmed case mouth showing proper inside and outside chamfers.

Problems or Questions

Good luck with your trimmer and shoot all **Xs**. If you have any problems with this trimmer or questions about operation, call me or drop me an email and I will be glad to help you. Together we will make your trimmer right and make sure you are using it in the most beneficial way possible. My email address is doug@giraudtool.com, if you can't reach me there; call me directly at 713-907-2695 after 6pm CST.

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**To order additional parts
or accessories, please
call [281-238-0844](tel:281-238-0844) during
weekday daytime hours
(9-5 CST, M-F).**

List of available cartridge and meplat sizes

.17 Mach 4	.25-20 Winchester	.300 WSM
.17 Hornady Hornet	.25-35 Winchester	.308 Norma Magnum
.17 K Hornet	.26 Nosler	.308 Winchester
.17 Remington Fireball	.260 Remington	.30-06 Springfield
.17 Remington	.260 Remington Ackley Improved	.30-06 Springfield Ackley Improved
.204 Ruger	.264 Winchester Magnum	.30-30 Winchester
.20 Practical	6.5 Creedmoor	.30-40 Krag
.20 Tactical	6.5 Grendel	.30 x .284
.20 Vartarg	6.5 x 47 Lapua	.30 x .338
.218 Bee	6.5 x 284	.30-378 Weatherby
.22 Hornet	6.5 x 54 MS	.303 British
.22 K Hornet	6.5 x 55 Swedish	8 x 57 Mauser
.22 Nosler	6.5 Jap Arisaka	.32-20
.220 Swift	6.5 Precision Rifle Cartridge	.325 WSM
.221 Fireball	6.5 RSAUM (GAP 4S)	.33 WCF
.222 Remington	6.8 SPC	.338 Edge
.222 Remington Magnum	.270 Weatherby	.338 Federal
.223 Remington	.270 Winchester	.338 Lapua Magnum
.223 Remington Ackley Improved	.270 WSM	.338 Lapua Magnum Improved
.223 Winchester Super Short Magnum	.277 Wolverine	.338 Norma Magnum
.224 Valkyrie	.28 Nosler	.338 RUM
.224 Weatherby Magnum	.280 Remington	.338 Ruger Compact Magnum
.22 BR	.280 Remington Ackley Improved	.338 Winchester Magnum
.22 PPC	.284 Winchester	.338/378 Weatherby
.22-250 Winchester	.284 Shehane	.340 Weatherby
.22-250 Winchester Ackley Improved	7mm-08	.35 Remington
.240 Tomahawk	7mm BR	.358 Winchester
.240 Weatherby	7mm Boo Boo	.35 Whelen
.243 Winchester	7mm Creedmoor	9.3x62
.243 Winchester Ackley Improved	7mm LRM	.375 H&H
.243 Winchester Super Short Magnum	7mm Raptor	.375 Chey Tac
6mm AR	7mm Remington Magnum	.375 Raptor
6mm BR	7mm RSAUM	.375 Ruger
6mm BRX	7mm RUM	.375 RUM
6mm Competition Match	7mm STW	.376 Steyr
6mm Creedmoor	7mm TCU AR	.378 Weatherby
6mm Crusader	7mm Weatherby	404 Jefferys
6mm Dasher	7mm WSM	408 Chey Tac
6mm Hagar	7 x 57 Mauser	416 Barrett
6mm PPC	7.5 x 54 MAS	416 Remington Magnum
6mm Rat	7.5 x 55 Swiss	416 Rigby
6mm Remington	7.62 x 39	416 Ruger
6mm Remington Ackley Improved	7.62 x 40 WT	416 Weatherby
6mm SLR	7.62 x 54R	450-400 Nitro Express
6mm X	7.65 Argentine	458 Lott
6mm XC	7.7 Jap Arisaka	458 SOCOM
6mm WOA	7.92 x 33 Kurz	460 S&W Magnum
6-.250	.30 BR	.50 Beowulf
6-.250 Ackley Improved	.30 Carbine	.50 Browning Machine Gun
6 x .284	.300 Blackout (Whisper)	.50 DTC
6 x 45 (.223)	.300 H&H Magnum	.500 S&W Magnum
6 x 47 (.222 Mag)	.300 Norma Magnum	
6 x 47 Lapua	.300 Ruger Compact Magnum	.22 Meplat
.25 Sharps (.25 x .223)	.300 RSAUM	6mm Meplat
.25 Winchester Super Short Magnum	.300 RUM	6.5mm/7.0mm Meplat
.250 Savage	.300 Savage	.30 Meplat
.257 Roberts	.300 Weatherby	.338 Meplat
.257 Weatherby	.300 Whisper/Blackout	.375 Meplat
.25-06 Remington	.300 Winchester Magnum	