

# GEN 3 CASE TRIMMER

## Henderson Precision

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### OVERVIEW

The **Tri-Trim Gen 3 Case Trimmer** utilizes a 3 in 1 cutter head to create clean, consistent, and completely trimmed cases in one operation. The cutter head has adjustable carbide blades that will last a lifetime and leave burr-free cuts on the mouth of the case. The Tri-Trim Gen 3 Case Trimmer is machined from 6061-T6 aluminum and a combination of 303 and 416 stainless steel. It has been engineered and manufactured 100% in America for a lifetime of service to the end user. It requires a user supplied power source for operation. This can be a corded or cordless hand drill. The end user can also purchase a motor from Henderson Precision.

### DESIGN

Case preparation is a necessary evil in the reloading process. The trim operation for rifle cases is especially time consuming unless you are using a **Tri-Trim Gen 3 Case Trimmer**. It is designed from the ground up to make trimming cases easy, fast and accurate. The cartridge case is held by a Forster manufactured, Brown and Sharpe type collet by the rim. These types of collets are used in the machine tool world because of their accuracy and repeatability. There are 4 collets for the various cartridges one would reload from .224 to .338 Lapua and everything in between. The cartridge case is placed into the collet base first and held in place while the handle is tightened to secure the case for the trimming operation. It only takes about ten degrees of rotation for the handle to secure the case and this design holds the case in the same position regardless of the rim diameter for consistent trim length. The collet assembly is mated to a carriage machined from solid 6061-T6 bar stock and precision fit to ground and polished stainless rods. The spindle is machined from stainless steel and rides in a set of sealed ball bearings which are press fit into the bearing housing which is also machined from solid 6061-T6 bar stock. All the aluminum parts are anodized. All the fasteners are grade 8, black oxide coated and sourced locally.

### SETUP

The **Tri-Trim Gen 3 Case Trimmer** comes with one cutter head and collet for the desired cartridge and will need to be set up before use. **Before any adjustments are made to the Tri-Trim Gen 3 Case Trimmer make sure the power source has been removed or unplugged.** The protective cover may be removed for the adjustment procedure, but must be used while in operation to prevent injury to the user. The 3 in 1 Cutter Head is factory set. If the carbide blades need adjustment, it is advised that you return the cutter head to Henderson Precision for adjustment. To set the length insert a cartridge case into the respective collet and tighten handle. Gently push the handle forward toward the cutter head until the mouth of the case passes over the pilot and touches the blades. There are four socket head cap screws supplied with the trimmer. With the case mouth touching the cutting blades, hold one of the screws up against the stop with the threads toward the cutter head. With the head of the screw touching the carriage stop there should be about ½" of

threads that can screw into the spindle housing stop rod. Retract the carriage and screw in the correct stop screw. Make sure the lock nut is backed off far enough to allow the case to touch the cutter when assembled. Once the stop screw is adjusted to allow the case to, once again, touch the cutter blades tighten the lock nut up against the stop rod. This is a coarse adjustment and should only take about five minutes. Install the protective cover and power source and attempt to trim your case by pushing it toward the cutter head. If it does not trim **remove the power source** loosen the lock nut and turn the lock screw in a small amount and attempt another trim cycle. Repeat as necessary until the cartridge case is trimmed and then measure and adjust as needed to attain the desired length. Once the length is set it will not need to be adjusted again. When changing to another cartridge just loosen the lock nut and remove the lock screw as an assembly. It can be marked for the cartridge it was used for and then used again when needed.

### Cutter Head

The cutter is connected with a 10/24 screw through the shaft. To change out the cutter (**first remove power source**) then loosen the 10/24 screw and remove the head. Replace the cutter with desired caliber making sure that both the taper on the cutter and shaft are clean. Insert the tapered ends together tightening back down the 10/24 screw snugly. **Do not over tighten.**

- **Do not overtighten the cutter head to the shaft**
- **Do not overtighten the stop screw against the bearing stop**

### OPERATION

The **Tri-Trim Gen 3 Case Trimmer**, as stated previously, is designed to work in many configurations. It can be powered by a hand drill or power unit. Optimum drill speed is from 1500-1700rpms, **not exceeding 1900rpms**. It is preferable to screw or clamp it to your work bench. When in proper position for use, the **Tri-Trim Gen 3 Case Trimmer** should be positioned on a bench with the cutter head facing toward the operator. When facing it, the cutter head will rotate in a counter-clockwise direction. The power source will be turning clockwise. Install your favorite hand drill to the spindle shaft and set the handle down on the bench on the right side of the trimmer as you are facing it. Turn on the drill and lock the trigger down for continuous operation. Insert a clean and sized cartridge case into the collet and rotate the handle clockwise, hand tight to secure the case. Gently push the handle toward the cutter until the cutter head engages the case mouth. At this point you will feel the cutting action. When you no longer see or feel the cutting action, retract the carriage and loosen the handle to remove the case. It is recommended that you measure the cases randomly to make sure all adjustments are secure. Once adjusted, The **Tri-Trim Gen 3 Case Trimmer** will repeat within +or- .002" with the same brand of brass. Enjoy your new **Tri Trim Gen 3 Case Trimmer** and if you have any questions please contact us so we can show you that our customer service is as good as the products we sell.