

Apex M&P Barrel Fit Guide

ALL OF THE FOLOWING OPERATIONS ARE TO BE DONE WITH ABSOLUTELY ZERO LIVE AMMUNITION PRESENT

Familiarization

- Free floating barrels like most polymer frame pistols have, use 6 contact points:
 - **Barrel hood** – The extension of the chamber coming back over the top of a chambered round to make contact with the breech face (Page 6)
 - **Bottom Muzzle Locking Surface** - 4 o'clock to 8 o'clock at the end of the muzzle, just behind the muzzle – **This surface should NEVER be altered** (Page 6)
 - **Top Muzzle Locking Surface** - 10 o'clock to 2 o'clock approximately .200" from the end of the muzzle - **This surface should NEVER be altered** (Page 6)
 - **Bottom Lock-up Surface** - Flat face at the rear under the chamber (Page 6)
 - **Top Lock-up Surface** – Flat top of the barrel just in front of the chamber, this surface determines how high the barrel sits in the slide (Page 5)
 - **Forward stopping surface** – Angled surface directly behind the half-moon shaped pocket for the recoil guide rod – **This surface RARELY needs to be altered** (Page 6)

Tools Needed

- 6" Fine metal cutting file with at least 1 safe edge – Recommended width .5 to .85"
 - [Equaling type file with #2 or finer teeth](#)
 - See additional file purchase options on the last page of this document.
- 600 and 1200 grit sandpaper
- 320 grit Emery cloth
- Barrel Alignment Gauge – 9mm (Brownells PN: 080-804-038) (Optional)
- [Apex Barrel Fitting Jig](#) (Optional)
- Dykem marking fluid or permanent marker (Optional)

Barrel Install Video

We offer a video on barrel fitting, see the link below.

<https://bit.ly/fit-apex-grade-barrel>

Technique

Using a hand file to remove metal can be a challenge, here are some tips to help.

General Info

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- Standard files cut when pushed away from the user, files that cut while pulling toward the user are known as Draw Files and are NOT very common.
- With each pass of the file, lift the file, return it to your start position and place it back down.
 - Pulling a file back across the surface of a work piece will dull the teeth very quickly.
 - Use a paper towel and swipe the file in the opposite direction of the cut to clear the debris from the cutting teeth between file strokes. The paper fiber and paper dust also prevent the teeth from clogging with metal and will produce a smoother cleaner cut.

Flat Surfaces

- Place the file flat on the surface you intend to modify, rock the file side to side to get a feel for where it sits flat, repeat this in the front to back orientation before filing.
- Start filing by using light pressure, check the surface after the first stroke to make sure it's flat and re-check flatness continually as you take material off.

Gunsmith Fit Barrels

Installation Process

- 1. Unload the pistol and remove all ammunition from the workspace.**
- 2. Wear Safety Glasses.**
- 3. Before you begin, take a photo of, or make note of where the rear of the slide sits compared to the frame when the barrel is installed, and the gun is fully in lock-up.**
- 4. Fit the Barrel hood length to the slide**
 - a. The barrel hood is manufactured long so you can fit the barrel to the slide with no excess fore/aft play.
 - b. Holding the slide upside down, insert the barrel into the slide and shift the barrel rearward so that the barrel hood extension contacts the breech face. If the chamber area of the barrel drops into the lockup position, no trimming of hood length is necessary.

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- c. If the chamber area will not drop into lockup position, remove the barrel from the slide and use Dykem or permanent marker to color the rear of the barrel hood that contacts the breech face.
 - d. Using the Barrel Fitting Jig and Equalling file remove material from the hood length. Recolor the end of the barrel hood and check fit. Ensure that color is being removed evenly on the left and right side of the barrel hood extension each time you check fit. Adjust filing pressure so that final fit removes color evenly across the hood length surfaces.
 - e. Break sharp corners on the left and right side of the barrel hood as needed.
- 5. Final polish the fitted surfaces**
 - a. After fitting the barrel hood length, use emery cloth and successively finer sandpaper to final polish the surfaces to remove filing marks and scratches.
 - b. We recommend wrapping your file in sandpaper for the best results.
- 6. Check firing pin to bore alignment (Optional)**
 - a. Using a barrel alignment gauge, check that the firing pin hole is concentric with the bore. The tip of the gauge should pass straight into the firing pin hole without any interruption or drag. If it does not go in or is difficult to press into the firing pin hole, the top lock-up surface may need to be fit.
 - i. Be aware that the extractor may be in the way for this, and we recommend that the extractor be removed to make the alignment pin more visible.
- 7. If necessary, fit the top lock-up surface**
 - a. Use the fine metal file to take the top lock-up surface down little by little until the barrel alignment gauge goes in smoothly.
 - i. We recommend one light pass with the file at a time between checks with the gauge.
- 8. Final polish the top lock-up surface**
 - a. use emery cloth and successively finer sandpaper to polish the fitted surface to remove file marks.
- 9. Check bottom lock-up surface of the barrel on the frame.**
 - a. Use Dykem or permanent marker to color the bottom lock-up surface of the barrel and the angled surface further toward the rear of the barrel.
 - i. Doing this will allow easy identification of the surfaces that need to be modified.

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- b. Install the barrel into the slide with the recoil guide rod and spring in place.
- c. Install the slide onto the frame rails and attempt to lock the slide back.
- d. If the slide does not go on the frame all the way, you will need to remove material off the bottom lock-up surface.

10. Fit the bottom lock-up surface

- a. Check the marks in the ink or Dykem applied to your barrel after attempting to fit the barrel. You will notice some material removed or smudged where the barrel encountered the locking block. If you find smudges on the angle at the back of the bottom lock-up surface, that will indicate the approximate amount of material you need to remove.
- b. Using the metal file, remove material from the bottom lock-up surface of the barrel.
 - i. Take light cuts and check the fit to the slide after every few swipes with the file.
- c. As you progress, you will need to reapply Dykem or ink to the surface to see where you're making contact.
- d. Once the slide is on the frame, lock the slide to the rear and rotate the Takedown Lever back into the locked-up position.
- e. Ease the slide forward and note the amount of pressure it takes to press into full battery.
- f. If it takes more than 2lbs of forward pressure to lock the slide into battery, you will need to remove more material from the bottom lock-up surface.
 - i. You should notice marks in the Dykem or ink, those denote the high spots, when filing, try to take material off the highest spots first.

11. Final polish the bottom lock-up surface of the barrel

- a. Use emery cloth and successively finer sandpaper to polish the bottom lock-up surface of the barrel to remove all file marks and other surface imperfections.

12. Check the forward stopping position of the slide and barrel

- a. Using your note or photo from the start of these instructions, check where the back of the slide sits with the new barrel installed compared to the factory barrel.
- b. **No change** - If the difference is minimal, there is no need to alter the forward stopping position of the barrel.
 - i. If you measured the surfaces and find .010" or less difference before and after the installation, there is no need to make any changes.
- c. **Visible difference** - If the slide is visibly sitting further to the rear than it was before the barrel was installed, contact our Customer Service people for assistance.

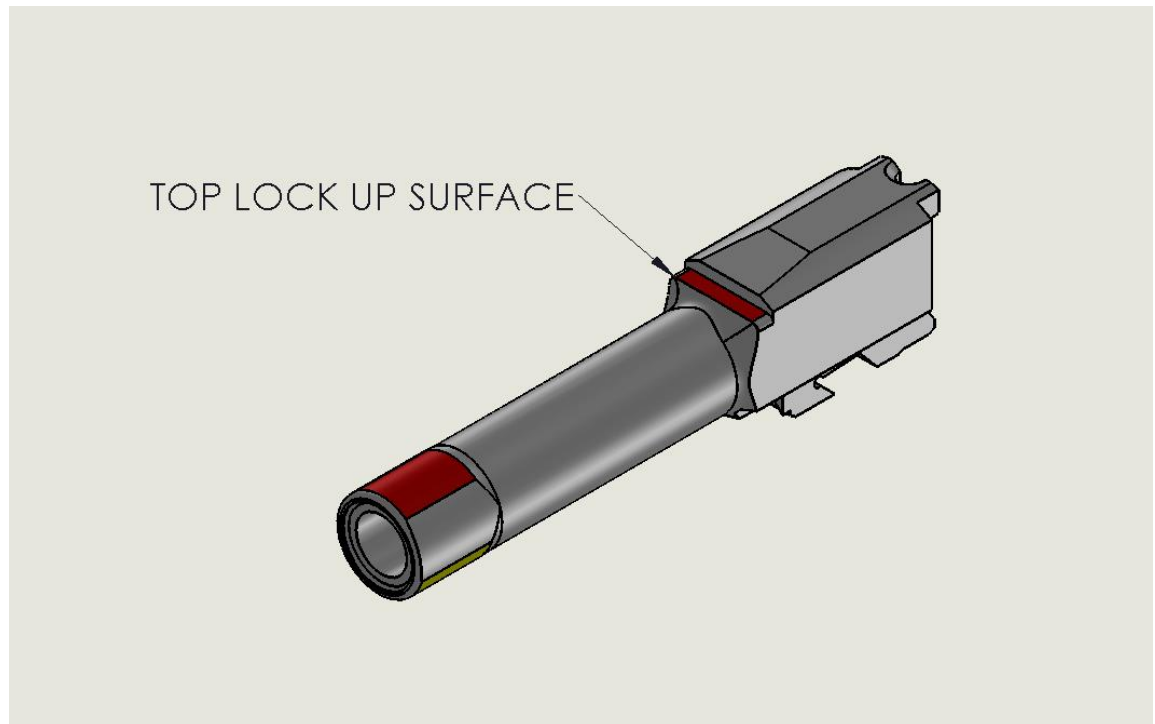
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CAUTION – IF THE FRAME AND SLIDE DID NOT LINE UP PERFECTLY WITH THE FACTORY BARREL, DO NOT ATTEMPT TO FIT THIS SURFACE TO MAKE THEM LINE UP. Doing so will alter the position of the striker block to the trigger bar and create timing issues. IF YOUR SLIDE STOPS IN AN INCORRECT LOCATION, CONTACT OUR CUSTOMER SERVICE STAFF FOR ASSISTANCE.

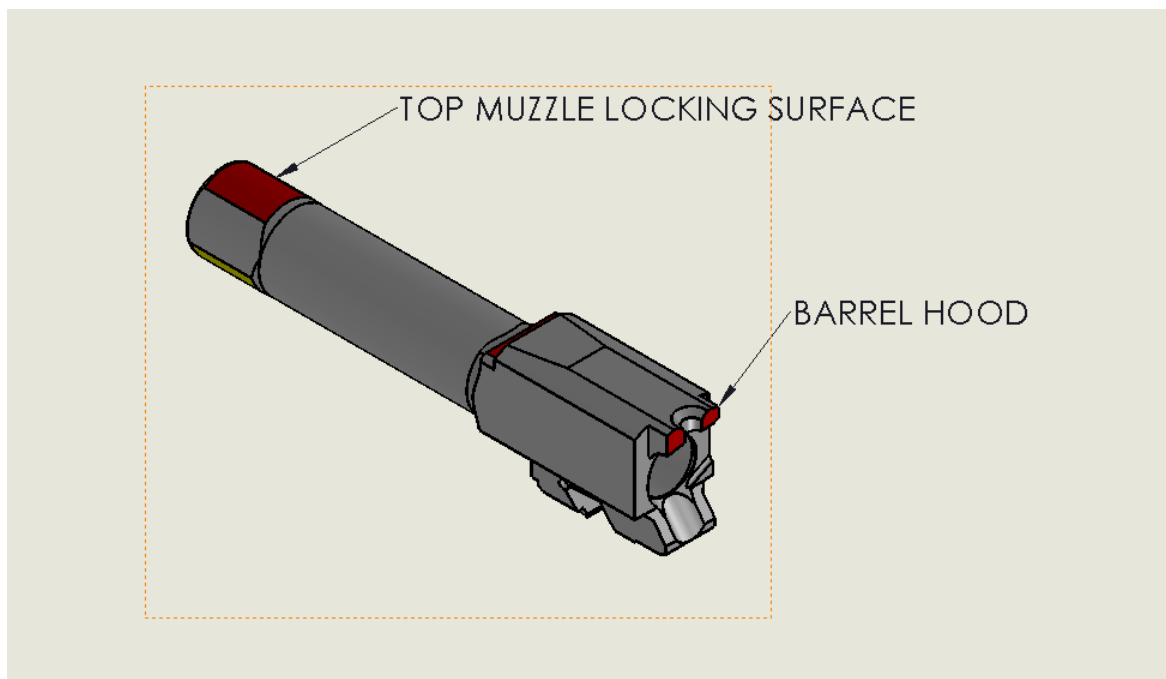
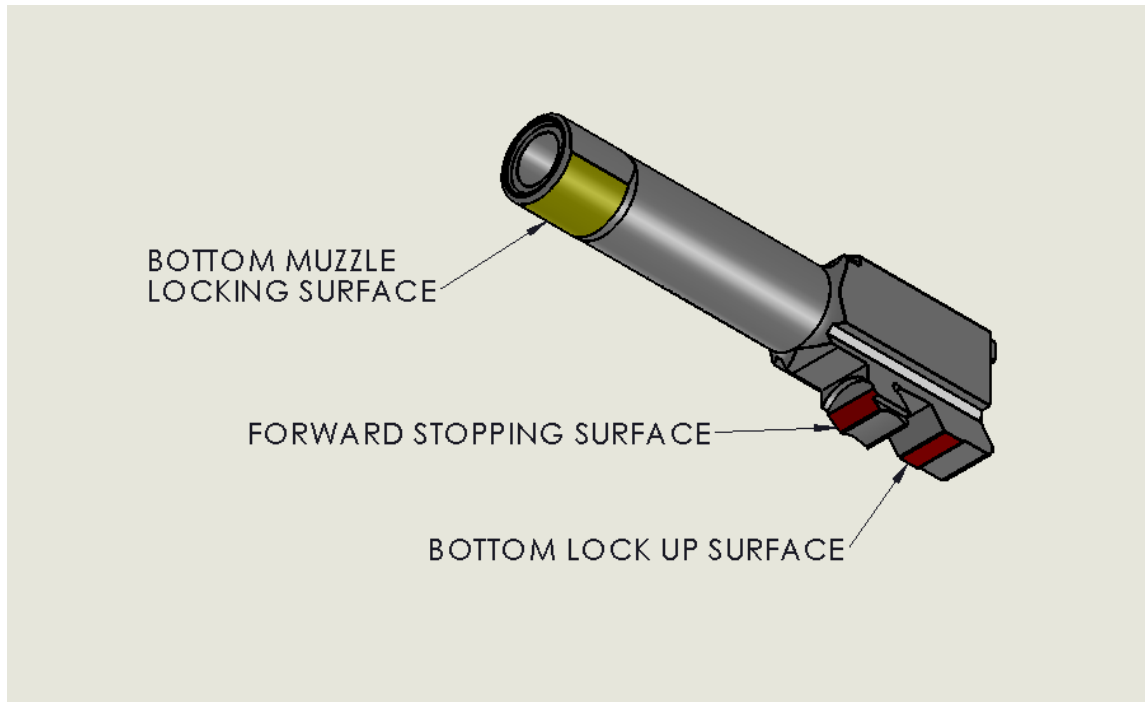
Process complete.

The below images are provided for reference. Your barrel may look different from this.



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Using the Apex Barrel Fitting Jig to fit the Barrel Hood length

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Using the Apex Barrel Fitting Jig to fit the Bottom Lock-up Surface



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Tools Available from Apex:

[Barrel Fitting File: https://www.apextactical.com/equaling-file-6-inch](https://www.apextactical.com/equaling-file-6-inch)

[Barrel Fitting Jig: https://www.apextactical.com/apex-barrel-fitting-block](https://www.apextactical.com/apex-barrel-fitting-block)

Additional File Purchase Options:

<https://contenti.com/grobet-equalling-files> - PN: 230-156-2

https://www.amazon.com/dp/B000IE9PB8/ref=cm_sw_em_r_mt_dp_U_LC5EEbSPFPP9M