

# USING THE VAC FIL TRIUMPH NIB REMOVAL TOOL

5/6/21

## **HOW THIS TOOL WORKS:**

This tool utilizes a key with a tiny finger that fits into a channel with a square cross section on the back of the Triumph feed. This channel runs under the back ring of the Triumph nib and through the channel in the feed. The goal here is to remove the nib and feed as one piece by softening up the sealant in the section behind the nib with heat and applying torque on the nib/feed assembly when the section has been brought up to temperature. While applying heat to the section be cautious about overheating the section or barrel. You don't want to heat up the nib or it will rotate in relation to the feed.

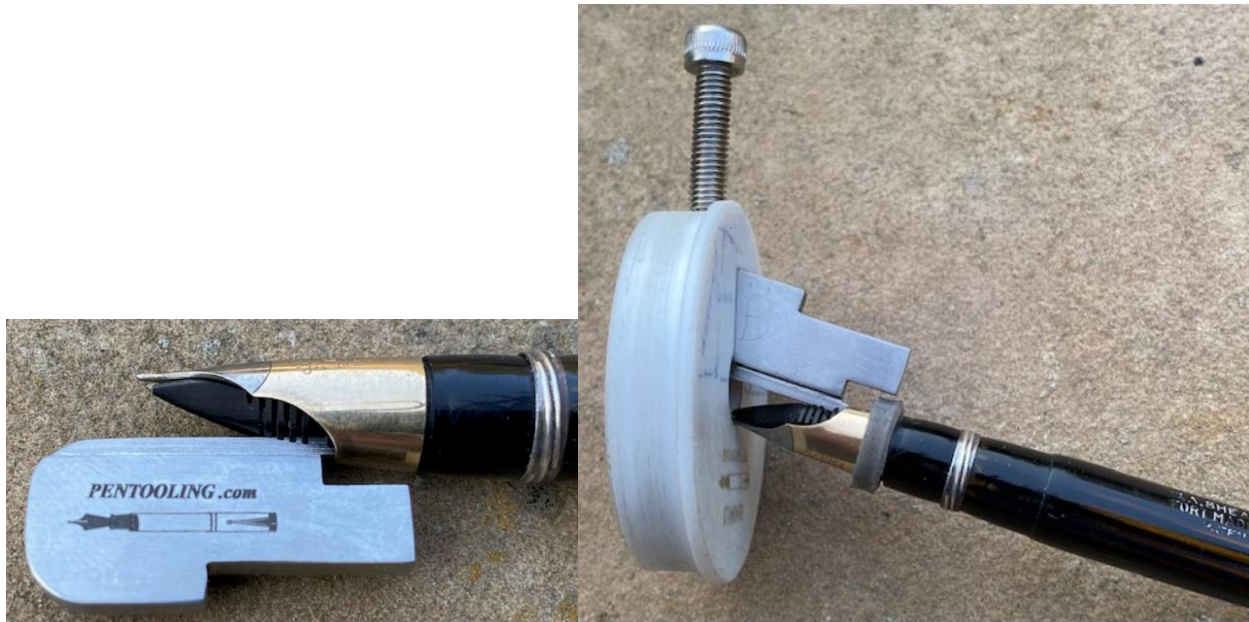


Each Triumph nib removal tool kit consists of 5 parts: Two 2" diameter high temperature plastic disks, two identical keys, two allen screws and two silicone rubber bands.

The disks feature conical bores which closely match the profiles of the two most common Sheaffer Vac Fil pen's triumph nibs. There are two different disks in the kit, one with angles fitting the earlier, less steep (9°) Standard nib, which 90% of the Triumph Vac Fil nibs will fit snugly into, and another disk to fit the steeper (13°) Special nibs. The Standard nib is on pens that held ink directly in contact with the sides of the barrel. The Special nib is on the later pens that use an internal, non-removable, non-disposable cartridge/plunger assembly to hold the ink. The Special tool will also fit on some of the early, short stubby Triumph nibs.



After determining which disk to use insert the finger on the key into the channel on the back of the feed



and under the ring on the rear of the nib. This channel continues on under the back of the nib and it will be used to lock onto the nib/feed combination while torque is applied. The feed channel will be different depths on different pens so the finger will go in different distances on different pens; the finger rarely goes all the way in. This channel continues on under the back of the nib and it will be used to lock onto the nib/feed combination while torque is applied.

The slot in the white disk holds the stainless key, the finger of which fits into this square channel on the bottom of the feed.

Insert the pen/key assembly into the slot and conical hole in the disk. Insertion of the key through the slot in the disk will get easier as the tool gets broken in.

Don't apply torque before applying heat as outlined below. When applying torque, **DO NOT FORCE IT. BE PATIENT!** If the nib/feed combination does not want to turn after heat is applied, go back to the heating step (not exceeding 160° Fahrenheit to 170° Fahrenheit on any part of the pen) and try again.

Some may prefer to insert the nib in the larger side of the conical hole in the disk without the key in it and then insert the key and finger into the square feed channel from the other side of the disk. This also works and care must be taken to not chip the fragile fins on the underside of the feed.

After the pen and key are inserted and adjusted for a firm fit in the disk, use your fingers to tighten the Allen head screw, locking the whole assembly of pen, key and disk together. **DO NOT USE A WRENCH WHEN TIGHTENING THE SCREW DOWN.** Such action could distort the gold nib.

Make sure the silicone band is in place to prevent as much heat as possible from reaching the gold nib.

The above are general nib/disk fitting guidelines, but you can also try pushing the nib firmly into the bore in a disk to see which disk has a firmer fit. There should be a small amount of the back end of the

gold nib extending slightly beyond the outside back surface of the disk. This ring, which is part of the back of the nib will be covered with the silicone band to keep the heat off of the nib. The goal is not to separate the feed from the nib; rather, you want the nib and feed to come out of the pen as a unit without the feed spinning relative to the nib. The section of the pen is carefully heated to soften the adhesive inside it while monitoring the temperature of the section and trying to turn the nib/feed combination out. Using too much torsional force will bring about this nib/feed spinning problem; if it doesn't want to turn, don't force it. BE PATIENT! Rather, go back to heating the section again. And be very careful about how much heat is applied to the section and the barrel of the pen; monitor the temperature of the section and aim for about 160°F to 170°F on the section. Note that the temperature scale used is Fahrenheit, NOT CENTIGRADE!

The pen barrel should remain perpendicular to the disk for optimal execution of the removal process.

***The assembly should look like this (below) when you are ready to apply heat:***



## Applying Heat

An airstream of 230°F to 240°F seems to work out best. You don't want the pen or its nib/feed/ section combination to reach that temperature. Monitor the temperature of the section of the pen with a handheld infrared temperature meter and when the section of the pen is between 160°F and 170°F you can start trying to unscrew the nib/feed assembly from the section of the pen with this tool. If it doesn't want to turn, DON'T FORCE IT. BE PATIENT! Go back a few steps and try again while still monitoring the section and pen temperatures. Do not leave the pen stationary while it is in the heat flow. Keep it moving and / or rotating or keep the heat source moving relative to the pen section.

Be especially careful to avoid getting the section of the pen too hot. It can soften up and distort, especially when applying torque and heat at the same time.



Applying heat with the PT44070 pen warmer.



The blue device is an infrared temperature meter which is kept within reach for use to monitor the section temperature.

Monitor the section temperature frequently while heat is being applied (and monitor it continuously if a second set of hands is available).



This is what you're trying for, below; a separated nib/feed assembly. The Sheaffer adhesive has been removed with a little rinsing and scrubbing with naphtha (lighter fluid).

To put things back together, use Ron Zorn's reproduction Sheaffer sealant.



***Other Triumph nib pens this tool might work on;***

These comments below are Ron Zorn's response to the question ***["Does this tool also work on Touchdown pens with Triumph nibs"?](#)***

There are minor variations between the plunger fillers, and the later Touchdown nibs. The truth is that Sheaffer used 3 or 4 different methods to mount the nibs on the collars over the years, and you often can't tell which they used just by looking at the nib.

The tool will work on all of the nibs for lever fill, and plunger fill Triumph pens and the FAT Touchdown pens. The Thin Model pens have a smaller nib that is the same size as the snorkel nibs, and screw onto the collar. The tool is too big for those nibs, and really isn't needed since the nib should unscrew off of the collar.

One note - the nibs on the fat TD pens fasten onto the collar differently. They screw onto the collar, and there is a ring below the nib. Sometimes the nib comes off of the collar. If that happens, you can use a drop of shellac to secure the nib on the collar, let it set, and then use the tool to unscrew the nib *unit* from the section. Some need more heat than others. In general, I try to get the section up to 160-165F and keep it there. Trying to get it to come off "NOW!" as Richard put it, is a recipe for a broken nib. Gentle, but firm and persistent pressure is needed to get the nib loose. One may have to heat the section a number of times before it comes loose. It often feels like the section as sheared. Once it starts turning you're on your way. Warm it again, and then it should unscrew completely. Patience is the key.