

STAINLESS BULLET SEATER BLANK WITH MICROMETER

IN-LINE SEATING INTRODUCTION:

Congratulations on your purchase! We thank you for supporting our MADE IN THE USA family owned business! By using WILSON In-line Seating Dies you can remove the threads from the bullet seating operation completely. Seating with WILSON Brand In-line dies simulates seating the bullet in your chamber, helping you to develop accurate, uniform handloads. With proper case prep, a Straight Line Bullet Seater can take your reloaded rounds to the next level. Below we have outlined the proper setup procedure, to enjoy years of use.

DIE CHAMBERING INSTRUCTIONS

Step 1: Clean Die with Solvent, Check Contents

Top of die will be determined by the Micrometer End of die. The Seating Stem and Cap Assembly will fit snug in that end.

Step 2: Determine Die Body Finish Length

Best way is to take your case length and add approx. 1.00" for calibers 17 - 7mm for calibers 270 - 35 cal add 1.500". You can also set the bullet case combo next to the seating die with cap assembly as length may vary depending on what grain and type of bullet you are using.

Step 3: Mark Length with Sharpie on Die Body

Double check length with a loaded dummy round (no primer, powder) to double check seating depth is correct before cutting die to length. Now remove Mic Cap using provided 3/32 hex wrench, do not lose felt pad.

Step 4: Cut Material off Bottom of Die

Measure twice cut once, please double check length by setting drift on tip of bullet and visualizing. Always better to cut a little long in this step, ream deeper then face material off base of die when finished.

Step 5: Chuck Die Concentric in Lathe

The bore of the die is most concentric part of the die. Insert a long pin gauge or straight chucking reamer, into the bore of the die and chuck die against an indicated true tailstock. You can then indicate front and rear to see if you are turning true before completing end work on die. Now drilling the body and neck are not an issue and you can proceed with reaming the die with your piloted reamer. Proceed to step 6.

Step 6: Drill Body Out

Use a drill approx .020" to .030" under smallest body diameter of reamer (Usually next to shoulder) To figure how deep to drill go from tip of drill back. Case Shoulder Depth + .050" to .080"

Step 7: Send in Neck Drill

Neck Drill should be about .020" under smallest neck diameter.

Neck Drill depth = Case Length + (.030" to .050")

Step 8: Use Reamer to Chamber Die

Run reamer into die with pilot slightly under Bore diameter (See back). Best to use a tail stock with the reamer "On Center". Use slow and steady pressure and plenty of your choice of cutting fluid.

Step 9: Add Counter Bore

The counter bore will aid in the removal of the loaded round. For larger diameter heads, use a steeper angle on the base, for smaller calibers use a wider angle on the base. This will allow you to remove the loaded round after seating the round.

Seating Stem, flat head screw driver here.

Major Adjustment

1 Full Turn = .042"

1/2 Turn = .021"

1/4 Turn = .0105"



Figure 1
Seating Cap

Use 3/32" Hex wrench (included) to loosen the Set Screw and adjust seating stem

Major Adjustment Seating set screw snug down to set.

DO NOT OVER TIGHTEN!!

There is a felt pad in-between the thread and set screw to prevent damage to seating stem threads.



Figure 2

Figure 3
Seating
Assembly

Seating Cap

Using the included 3/32" hex wrench loosen to adjust This is for minor adjustment by .001" and .050" per revolution.

Clockwise to make OAL shorter Counter-clockwise to make OAL longer

Snug set screw to set in place **DO NOT OVER TIGHTEN!!**

Bullet Seater Die Body
All are chambered caliber specific

Bullet Seater Base - keeps primers safe during seating operation bulged primers can also affect seating depth if not used during seating process.

Frequently Asked Questions

- 1) My cases do not fit in my die.
Ream die deeper to fit AS-FIRED cases. Headspace to $-.005$ " for slight growth with firings.
- 2) I am not able to achieve my desired OAL or COAL.
You have cut the die too short for your application.
- 3) I am experiencing run-out in my seated round.
Run-out can be caused by several factors.
 - a) Verify consistent, uniform case wall thickness
 - b) Sizing the Neck and/or body too much can distort the case and make seating an in-line round impossible.
Check case before and after sizing and determine if there is an issue with the sizing die or bushing size. Using a L.E. Wilson Regular Case Gage can help to figure out how much you are sizing your brass.
 - c) Quality of brass, mixed brass or brass from other chambers can cause issues.
 - d) Concentricity of your guns chamber - are the necks on your fire-formed rounds concentric?
- 4) The seating stem (drift) seems to be sticking during or after seating.
First check that your neck tension is approx $-.002$ " under bullet diameter. If you are loading new brass, it is best to run an expanding mandrel through your cases to get correct neck tension. Lastly, we may need to custom fit your stem to your bullet.
- 5) Do I need a VLD stem?
Best option is to try seating the bullet with the standard stem, it will work for most bullets out there. If you do not see your desired result or if you have some of the extremely long VLD's, it may be a good idea to add this in.
- 6) I do not see a difference between a Regular Stem and a VLD Stem?
Yes, you may not be able to "see" the difference, but the stem is reamed to a completely different angle and then honed on a lathe to specifically fit that caliber VLD.
- 7) The seating stem does not fit on the ogive?
Sam (L.E.) Wilson stated vary plainly in these words. " It is not necessary to have the cone in the seating plunger an exact fit on the ogive of the bullet. All that is required is a small contact and even so small that it leaves a small ring mark on the bullet is okay. The important thing is that the bullet be precisely supported with reference to the bore of the seater and a full contact will accomplish no more toward that end than a line of contact."
- 8) Why are there two different size ends on the die blank?
This was done so one end would fit the cap and stem assembly. The opposite (larger) end is to be drilled out to fit the specific caliber you have selected. Best to drill body out then neck before sending in the reamer.
- 9) After reaming my die to finish, I see two steps in the die around the neck area?
First verify that you reamer does not have a step built into the reamer, most of the time chamber reamers will have the lead and neck built in, so you will see a step in your finished die. If your reamer was built to chamber dies, then you should be able to ream the die a bit deeper to clean up the neck.

Bore Finish Diameters by Caliber

CALIBER	BORE DIA.
17 CAL.	0.174
20 CAL.	0.206
22 CAL.	0.226
6MM CAL.	0.245
25 CAL.	0.259
6.5 CAL.	0.266
270 CAL.	0.279
7MM CAL.	0.286
30 CAL.	0.310
32 CAL.	0.323
33 CAL.	0.341
8MM CAL.	0.325
34 CAL.	0.350
35 CAL.	0.360