User Instructions for the Bushing Bump Neck Sizing Die

1.0 GENERAL INFORMATION
The Bushing Bump Neck Sizing Die offers advanced precision by allowing you to precisely control the amount of neck sizing tension in your reloaded cartridge brass. This die improves accuracy and prolongs case life because the neck is sized down as little as necessary while still “bumping” the shoulder of the case to maintain overall case concentricity.

3.3 Prepare the Cases
1. Inspect all cases and dispose of those that are split or separated.
2. Clean cases.
3. If the case neck walls vary in thickness, turn the outside neck to a consistent thickness using a Forster Outside Neck Turner (HOT1010 or HOT100).
4. Chamfer sharp corners of trimmed cases with a Forster Deburring Tool.
5. Lightly lubricate the case neck and shoulder with Forster High Pressure Lube. Do not over-lubricate, as this may create pressure dents during sizing.
6. If using the optional Expander Ball (see Section 6.0), apply a thin coat of dry lubricant to the inside of the case necks by pushing the cases down over the brushes of a Forster Case Graphiter.

3.4 Prepare the Die
Clean inside die surfaces using a cloth patch saturated with gun-cleaning solvent.

3.5 Select the Neck Bushing

Bushing Selection Algorithm
\[ \text{[case neck wall thickness x 2] + bullet dia.} - 0.002" = \text{correct bushing size (number on bushing)} \]

Micrometer or Dial Caliper: Measure the outside neck diameter of several loaded cartridges. Ideally, this measurement should not vary more than 0.001". Use the smallest diameter in the formula below:
\[ \text{case outside neck dia.} - 0.002" = \text{correct bushing size (number on bushing)} \]

TIPS
• For increased bullet grip/greater press fit, subtract 0.003" instead of 0.002" in the formula above.
• If using moly-coated bullets, the neck bushing may need to be up to 0.003" smaller to maintain adequate bullet tension.
3.6 Insert Bushing and Adjust Lock Nut/Decapping Assembly
1. Loosen the Large Lock Nut (DIENUT-X-10-9/16-18) and remove the Lock Nut/Decapping Assembly from the die.
2. Insert the correct neck bushing, chamfered side down (Fig. 2), into the top of the die.
3. With the Large Lock Nut loosened, screw the Lock Nut/Decapping Assembly back into the die until contact is made with the neck bushing.
4. Turn the Spindle Bushing (Y-10-1.350, Y-10-1.500, Y-10-1.625) approximately 1/8 turn counterclockwise. This action allows a slight amount of bushing float.
5. While holding the Spindle Bushing in its position, tighten the Large Lock Nut against the top of the die. The Spindle Bushing is now properly adjusted to maintain this bushing float.
6. Ensure the Small Lock Nut (DIENUT-A10-10-32) and the Washer (DIESZR-W-10) are tight against the Spindle Bushing to prevent the Spindle (DIESZR-D-10#) from moving.
7. The Bushing Bump Neck Sizing Die is now ready to size your cases.

Figure 2. Bushing (Bush-XXX)

TIP
It is preferable to adjust headspace without removing the Die from the press, using the following technique:
1. Slightly loosen the adjustment screw on the Lock Ring.
2. Hold the Lock Ring in place while turning the Die to the required depth.
3. Tighten the Lock Ring, and continue sizing cases.

5.0 OTHER APPLICATIONS

5.1 Partial Neck Resizing
The Bushing Bump Neck Sizing Die may easily be adjusted to resize only a portion of the neck length (see Fig. 4). The partially-sized neck allows the unsized section to better align the cartridge in the rifle chamber. This action places the bullet close to the lands of the rifling with equal pressure at top and bottom.
1. Loosen the Large Lock Nut.
2. Turn the Spindle Bushing counterclockwise to the desired point. (The greater the turn, the smaller the sized area on the case neck.)
3. Tighten the Large Lock Nut.

Figure 4. Partial Neck Resizing

5.2 Shoulder Bump Only
By removing the neck bushing, the Bushing Bump Neck Sizing Die may be used to bump the shoulder without changing the case neck diameter (see Fig. 5). This action maintains proper headspace in any chamber, be it custom or factory.

Figure 5. Shoulder Bump Only

5.3 Case Neck Forming
When using neck bushings to form “wildcat” calibers, squeeze the cartridge necks down using 0.010” increments. Neck reaming and/or outside neck turning are usually required after or during neck-forming conversions. Always proceed with extreme caution when developing loads for converted wildcat calibers.

6.0 “E-Z” OUT EXPANDER BALL (E-10) OPTION FOR NECK EXPANSION
Although the Bushing Bump Neck Sizing Die is designed for prepared cartridges that normally do not require a Forster “E-Z” Out® Expander Ball, it may be ordered separately (see Section 8.0) and installed on the Spindle. This technique may be advantageous when using commercial brass “as is” or to correct damaged case mouths ejected from semi-automatic rifles. For more information, see “User Instructions for the Bench Rest® Full Length Sizing Die” found under “User Instructions” at the Resources section of our website.

Forster can also manufacture neck reamers to custom specifications.

7.0 AFTER USE
Oil the die with good quality gun oil before storing die until the next use.

8.0 REPLACEMENT PARTS
Every product component is available individually. A complete list of component order numbers and prices is available on our website. Go to forsterproducts.com, then click Replacement Parts.

For best prices, contact your Forster distributor. Experienced distributors are an integral part of the shooting sports. Please make frequent use of their knowledge and support them. To find a Reseller, go to forsterproducts.com, then click Distributors. If your distributor cannot supply you, please contact us by email, fax, or phone.

WARRANTY
All Forster Products are warranted against defects in materials and workmanship for the life of the product. Parts excluded from the warranty are those that, by nature of their function, are subject to normal wear (such as springs, pins, etc.) or that have been altered, abused, or neglected. If the product is deemed defective by workmanship or materials, it will be repaired, reconditioned or replaced (at Forster’s option). This warranty supersedes all other warranties for Forster Products, whether written or oral.

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