

RCBS®

X DIE *Patent # 5,635,661*



PRODUCT INSTRUCTIONS

IMPORTANT: READ THIS SECTION FIRST

Before using the RCBS X-Sizer die, read this instruction manual carefully to fully learn how to safely operate the related reloading equipment. Failure to properly operate certain reloading equipment can result in severe personal injury and/or equipment damage. If you have read these instructions, but do not clearly understand the described operation, call us at 1-800-533-5000 and a technician will assist you. This instruction manual contains specific safety and operating information. It should be considered a permanent part of your reloading equipment and remain with the equipment at all times for easy reference.

SAFETY

Reloading is an enjoyable and rewarding hobby that can be conducted safely. But, as with any hobby, carelessness or negligence can make reloading hazardous. This product has been designed from the beginning with the user's safety in mind. When reloading, safety rules must be followed. By observing these rules, the chance of a hazardous occurrence causing personal injury or property damage is minimized.

GENERAL

- Use all equipment as the manufacturer recommends. Study the instructions carefully and become thoroughly familiar with the operation of the product. If you do not have written instructions, request a copy from the equipment manufacturer.
- Do not take short cuts. Attempting to bypass established procedures is an invitation to an accident.
- Observe "good housekeeping" in the reloading area. Keep tools and components neat, clean and orderly. Promptly and completely clean up primer and powder spills.
- Reload only when you can give your undivided attention. Do not reload when fatigued or ill, or under the influence of medications or alcohol. Develop a reloading routine to avoid mistakes which may prove hazardous. Do not rush - load at a leisurely pace.
- Always wear adequate eye protection to protect your eyes from flying particles. You assume unnecessary risk when reloading without wearing safety glasses.

LOADING DATA

- Use only laboratory tested reloading data. We highly recommend the SPEER reloading manual and the RCBS.load reloading software.
- **OBSERVE ALL WARNINGS ABOUT THE USE OF MAXIMUM LISTED LOADS.**

PRIMERS AND POWDER

- Store primers and powder beyond the reach of children and away from heat, dampness, open flames and electrical equipment. Avoid areas where static electricity is evident.
- Do not use primers of unknown identity. Scrap unknown primers in accordance with applicable regulations.
- Keep primers in the original factory container until ready to use. Return unused primers to the same factory packaging for safety and to preserve their identity. Primer packaging is designed to provide safe storage.
- DO NOT store primers in bulk. The blast of just a few hundred primers is sufficient to cause serious injury to anyone nearby.
- DO NOT force primers. Use care in handling primers.
- DO NOT have more than one can of powder on the bench at one time. Powder cans should be stored away from the bench to avoid picking up the wrong one.
- **DO NOT use any powder unless its identity is positively known. The only positive identification is the manufacturer's label on the original canister. Discard all mixed powders and those of uncertain identity.**
- If you use a powder measure, replace the lids on both the powder hopper and powder can after the powder hopper has been filled.
- When using a powder measure, settle the powder in the powder hopper before charging any cases. Throw and check the weight of at least ten charges. This will assure you that the correct powder charge is being thrown.
- When you finish a reloading session, pour any remaining powder back into its original factory container. This will preserve the identity and shelf life of the powder.
- DO NOT smoke while reloading.

RECORD KEEPING

- Keep complete records of reloads. Apply a descriptive label to each box showing the date produced, and the primer, powder and bullet used. Labels for this purpose are packed with SPEER bullets. **Never attempt to guess at the identity of your ammunition.**

Because RCBS has no control over the type and condition of firearms used, components selected, assembly of those components and the use of this product, we assume no responsibility, expressed or implied, for the use of this product for reloading.

ABOUT THE X DIE

The X-Sizer die is a uniquely designed full length resizing die for bottleneck rifle cases. This die not only full length resizes the case, it also limits the growth of the case. This eliminates the need for repeated trimming after an initial trim is done to standardize the case. This die is not intended to shorten the length of the case, rather, as the case grows, the mandrel will reduce the normal rate of growth. This is the result of the case mouth coming in contact with the mandrel stop during resizing. Cases repeatedly sized in the X-Sizer die will grow a few thousandths of an inch initially, and will then stabilize below the maximum case length. Using the X-Sizer die eliminates the need to trim after each shot. X-Sizer dies can be used for full-length resizing with or without the X feature. Partial neck sizing can be done but only without the X feature.

CLEANING THE X DIE

You MUST clean new dies before use. These dies contain a small vent hole through which trapped air escapes during resizing. Sometimes the vent hole will plug up with factory polishing material. This material will scratch and dent cases unless it is removed. To clean, unscrew the mandrel from the die. Insert a straightened paper clip, needle or similar object into the vent hole. This will push the material into the die body. The debris can then be easily removed by cleaning the inside of the die using a patch saturated with *Outers Solvent*. Reassemble the die.

PREPARING YOUR CASES

All cases must be sized and trimmed to the same overall length. For the best results, full-length resize each case and trim to .020" under maximum case length. This is a **"one-time only"** preparation of any and all cases to be used in the X-Sizer die. The X-Sizer die can be used for full-length resizing by setting it as follows:

- Install the proper shell holder in the ram



Photo 1

- Adjust the mandrel so the decapping pin extends 1/8" below the die (see Photo 1).

- Screw the X-Sizer die into the press until the die touches the shell holder when the shell holder is brought up to the top of the press stroke. To remove any play in the press linkage system, lower the shell holder and adjust the die 1/8 to 1/4 of a turn downward so the press cams over center. Lower the press



Photo 2

handle all the way and note the "feel" of the cam over in the linkage. With the handle all the way down, tighten the large die lock ring.

- Insert a **lubed** case into the shell holder and run it into the die.
- Screw the mandrel into the die until hard resistance is felt.
- Back the mandrel out 1 to 2 turns and tighten the lock nut on the mandrel.
- With this setting, lube and resize all the cases you plan to use in the X-Sizer die. After sizing, remove the lube and trim the cases as directed above.

X DIE SET UP

STEP 1: Back the mandrel out of the die until the decapping pin extends below the base of the die approximately 1/16" to 1/8". See *photo 1*.

STEP 2: Screw the X-Sizer die into the press until the die touches the shell holder when the shell holder is brought up to the top of the press stroke. To remove any play in the press linkage system, lower the shell holder and adjust the die 1/8 to 1/4 of a turn downward so the press cams over center. Make every effort possible to duplicate the same amount of cam force each time the die is used. See *photo 2*.

*This product is covered by the RCBS Lifetime Warranty. If you need a replacement part, please call or write Customer Service
1-800-533-5000*



Photo 3

STEP 3: Tighten the large lock nut. Insert one of your sized, decapped, trimmed and **lubed** cases into the shell holder and run the case into the die as is done in full length sizing. See photo 3.

STEP 4: With the case fully inserted into the die, screw the mandrel into the die until hard resistance is met. Approximately four turns of threads will be left on the mandrel above the lock nut. See photo 4. Tighten the lock nut on the mandrel.

Note: Maintain this setup throughout the entire life of the cases in this trimmed lot.

STEP 5: Reinsert a case in the die and check for any bulging on the case by:

- 1) Comparing with photo #5.
- 2) Chamber the first few cases at the beginning of the loading session. If the cases don't chamber (due to bulging), the mandrel is too far down in the die. (You will need to repeat Step 4). Size cases as you would with any full length sizer die.



Photo 4

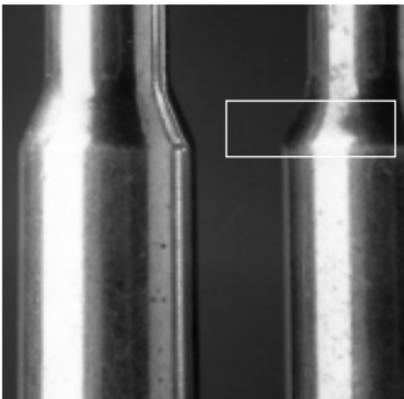
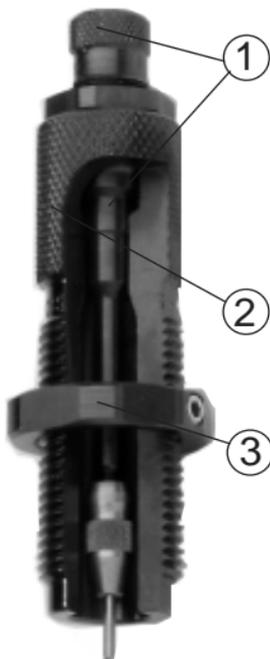


Photo 5. Observe the bulged shoulder area in the case on right.

Note: Adjusting the mandrel too far down will cause the case to buckle. If the mandrel is not adjusted far enough, it will allow the cases to continue growing. Die adjustment explained in step 2 is very important to achieve consistent results. Cases sized in the X-Sizer die will have growth of a few thousandths of an inch during the first few sizings until each case seats against the mandrel stop.

X DIE PARTS LIST

| Key | Part # | Description |
|-----|--------|--|
| 1 | • | X Die Mandrel Assembly*: |
| | 10314 | 204 Ruger |
| | 38314 | 22 Hornet |
| | 37114 | 22-250 Rem |
| | 38814 | 220 Swift |
| | 37014 | 222 Rem |
| | 37214 | 223 Rem |
| | 37214 | 223 Rem Small Base |
| | 10514 | 223 WSSM |
| | 37314 | 243 Win |
| | 11614 | 243 WSSM |
| | 12414 | 25 WSSM |
| | 38964 | 25-06 |
| | 39014 | 260 Rem |
| | 38414 | 6.5x55 Swedish Mauser |
| | 31314 | 270 WSM |
| | 37514 | 270 Win |
| | 39064 | 280 Rem |
| | 37614 | 7mm Rem Mag |
| | 31114 | 7mm Rem SA Ultra Mag |
| | 17814 | 7mm Rem Ultra Mag |
| | 39114 | 7mm STW |
| | 31414 | 7mm WSM |
| | 37414 | 7mm-08 Rem |
| | 37714 | 30-06 Springfield |
| | 37714 | 30-06 Springfield Small Base |
| | 37914 | 30-30 Win |
| | 31214 | 300 Rem SA Ultra Mag |
| | 17614 | 300 Rem Ultra Mag |
| | 39214 | 300 Wby Mag |
| | 38914 | 300 Win Mag |
| | 30814 | 300 WSM |
| | 39364 | 303 British |
| | 37814 | 308 Win |
| | 37814 | 308 Win Small Base |
| | 38714 | 8mmx57 Mauser |
| | 17714 | 338 Rem Ultra Mag |
| | 39314 | 338 Win Mag |
| | 30914 | 375 Rem Ultra Mag |
| 2 | • | X Die Body |
| 3 | 87501 | Hex Lock Nut Assembly (7/8-14) |



* Includes lock nut 1/2"-32

• Not available separately

Note: Each mandrel and die body are caliber specific and are not interchangeable.

RCBS[®]

PRECISIONEERED[®] RELOADING EQUIPMENT

*We think that we make the very best
reloading equipment in the world.*

If you agree, please tell your friends.

If you disagree, tell us - we want to do something about it!

Customer Service

1-800-533-5000 (US or Canada) or **530-533-5191**

Hours: Monday - Thursday, 6:30am - 3:00pm (hours may vary)

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X DIE CALIBERS

| | X DIE SETS | X-SIZER DIES |
|---------------------------|-------------------|---------------------|
| 204 Ruger | 10312 | 10309 |
| 22 Hornet | 38312 | 38309 |
| 22-250 Rem | 37112 | 37009 |
| 220 Swift | 38812 | 38809 |
| 222 Remington | 37012 | 37209 |
| 223 Remington | 37212 | 37109 |
| 223 Rem Small Base | 38862 | 38859 |
| 223 WSSM | 10512 | 10509 |
| 243 Win | 37312 | 37309 |
| 243 WSSM | 11612 | 11609 |
| 25 WSSM | 12412 | 12409 |
| 25-06 | 38962 | 38959 |
| 260 Rem | 39012 | 39009 |
| 6.5x55 Swedish Mauser | 38412 | 38409 |
| 270 WSM | 31312 | 31309 |
| 270 Win | 37512 | 37509 |
| 280 Rem | 39062 | 39059 |
| 7mm Rem Mag | 37612 | 37609 |
| 7mm Rem SA Ultra Mag | 31112 | 37709 |
| 7mm Rem Ultra Mag | 17812 | 17809 |
| 7mm STW | 39112 | 39109 |
| 7mm WSM | 31412 | 31409 |
| 7mm-08 Rem | 37412 | 37409 |
| 30-06 Springfield | 37712 | 37709 |
| 30-06 Springfd Small Base | 39162 | 39159 |
| 30-30 Win | 37912 | 37909 |
| 300 Rem SA Ultra Mag | 31212 | 31209 |
| 300 Rem Ultra Mag | 17612 | 17609 |
| 300 Wby Mag | 39212 | 39209 |
| 300 Win Mag | 38912 | 38909 |
| 300 WSM | 30812 | 30809 |
| 303 British | 39312 | 39359 |
| 308 Win | 37812 | 37809 |
| 308 Win Small Base | 39262 | 39262 |
| 8mmx57 Mauser | 38709 | 38712 |
| 338 Rem Ultra Mag | 17712 | 17709 |
| 338 Win Mag | 39312 | 39309 |
| 375 Rem Ultra Mag | 30912 | 30909 |

**For automatic, semi-automatic, pump, slide and some lever-action rifles only.*