

RELOADING DIES



WARNING!

Before using this product, read and follow these instructions carefully. Failure to do so could result in serious injury or death, or property damage.

**If you have any questions while
assembling or operating this product,**

call us at 1-800-533-5000

Or email us at rcbs.tech@vistaoutdoor.com.

This instruction manual contains important safety and operating information. Keep this as a permanent part of your reloading equipment. If lost, contact us for a replacement.

NOTE: This die set is designed only for the specific cartridge imprinted on the die. Do not attempt to load cartridges using a die set intended for a different cartridge.

!WARNING! Read and follow these precautions before attempting to resize cases.

- Do not attempt to resize a primed case with Decapping Pin installed.
- To ensure proper and safe headspacing, we recommend using RCBS dies only with RCBS Shell Holders.
- Never attempt to modify a Sizer Die or Shell Holder in any way. Doing so can result in incorrect headspace and create a dangerous condition.
- After resizing, always inspect case for dents, cracks, bulges or damage of any kind. Do not use if case is damaged.
- After resizing, measure case length and trim if necessary. Cases that are too long can result in excessive pressures and create a dangerous condition.

!WARNING! Read and follow these precautions before attempting to expand cases.

- Do not overflare (bell) straight-wall cases. Excessive flaring can cause premature mouth splits, and result in a dangerous condition.

!WARNING! Read and follow these precautions before attempting to seat bullets.

- Ensure bullets are seated at the proper depth. Seating bullets too high or too low can result in excessive pressures, a bullet in the bore, or other dangerous conditions. Measure for proper Cartridge Over All Length (C.O.A.L.) after seating.
- When the loaded cartridge is seated in the chamber, under no circumstances should the bullet touch the bore rifling. Dangerous pressures could result.
- For lead cast bullet loading, periodically disassemble and clean the Seater Die and Seat Plug to prevent excess buildup of lubricant. Excess lubricant can result in bullets being seated too deep.
- Inspect case for proper charge before seating bullet. RCBS recommends charging and inspecting all cases before beginning bullet seating. This ensures they are uniform and correct.
- Use slow, even pressure when seating bullets on compressed charges. Inspect case for bulging or cracking before use.
- Use care when crimping. Do not use excessive force, as doing so can damage the cartridge case and result in dangerous pressures.

LIFETIME LIMITED WARRANTY

Your RCBS Reloading Dies are warranted to be free from defects in material or workmanship for as long as the original owner owns them. This warranty is extended only to the original consumer purchaser. All RCBS® products are intended for non-commercial use by hobbyists. Any other use of these products will void the warranty. If you believe that your product is covered by this warranty, you must return the product to RCBS at the address shown, postage paid, with proof of purchase for evaluation. If covered, we will (at our sole option) repair, replace, or refund the purchase price of any part or product found to be defective. This remedy will be without charge except for reasonable shipping, handling and insurance charges.

TO ENSURE ACCURACY OF YOUR WARRANTY INFORMATION, SEND YOUR DATED PROOF OF PURCHASE TO THE ADDRESS BELOW. This limited warranty does not cover defects or damage resulting from carelessness, misuse, commercial use, abuse, neglect, improper installation or assembly, water submersion, unauthorized or improper repair, failure to follow

operation instructions, modification or normal wear and tear.

ANY WARRANTIES IMPLIED BY LAW SHALL IN NO EVENT EXTEND BEYOND DURATION OF THIS EXPRESS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

REPAIR OR REPLACEMENT AS PROVIDED HEREIN IS YOUR EXCLUSIVE REMEDY FOR ANY DEFECTIVE PRODUCT. IN NO EVENT SHALL WE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND ARISING OUT OF THE PURCHASE OR USE OF THIS PRODUCT, WHETHER BASED UPON CONTRACT, TORT, STATUTE OR OTHERWISE. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

CONTACT US:
RCBS
605 Oro Dam Blvd East Oroville, California, 95965
1-800-533-5000
E-mail: rcbs.tech@vistaoutdoor.com
Website: rcbs.com

RELOADING SAFETY

NOTICE - This manual is not intended to provide comprehensive instructions or safety information on how to reload, or how to handle or use reloading components. Always read and thoroughly understand a reloading manual before attempting to reload ammunition.

Reloading is an enjoyable and rewarding hobby when conducted safely. But, as with many hobbies, carelessness or negligence can make reloading hazardous. When reloading, always follow these safety guidelines to minimize the risk of personal injury or death.

- Always wear safety glasses.
- Understand what you are doing and why. Read handbooks and manuals on reloading. Talk to experienced reloaders. Write or call suppliers of equipment or components if you have questions or are in doubt.
- Read and understand all warnings and instructions accompanying your equipment and components. If you do not have written instructions, request a copy from the manufacturer. Keep instructions for future reference.
- Do not rush or take short cuts. Establish a routine and follow it at a leisurely pace.
- Keep complete records of reloads. Label each box showing the date produced, and the type of primer, powder and bullet used.
- Do not smoke while reloading, or reload near sources of heat, sparks or flame.
- Observe good housekeeping in the reloading area. Keep tools and components neat, clean and orderly. Promptly and completely clean up any spills.
- Keep all reloading equipment and components out of reach of children.
- Stay alert. Reload only when you can give your undivided attention. Do not reload when tired, ill, rushed or under the influence of drugs or alcohol.

Because RCBS® has no control over the choice, assembly or use of components or other reloading equipment, RCBS assumes no liability, expressed or implied, for the use of ammunition reloaded with this product.

LOADING DATA

Use only laboratory tested reloading data. We highly recommend the current Speer® Reloading Manual.

⚠ CAUTION! OBSERVE ALL WARNINGS ABOUT THE USE OF MAXIMUM LISTED LOADS.

WORKING WITH CARTRIDGE CASES

- Examine empty cases to be sure they are in good condition before reloading. Thin, split, deformed, or badly corroded or pitted cases may be structurally weak, and result in a dangerous condition. Pay particular attention to splits in the mouth, separation between the case and the head, and dents in the shoulder.
- Do not store cartridge cases or ammunition near harsh chemicals such as gasoline, household cleaners or cat urine. The fumes can weaken the metal and present a dangerous condition.
- Do not clean cases with chemicals other than those specifically designed

for the purpose.

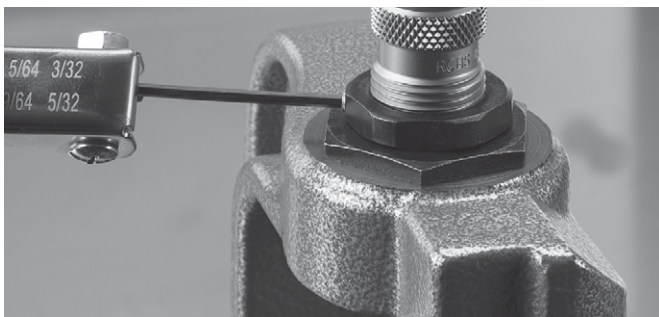
- Do not attempt to clean loaded ammunition or primed cases. Doing so can cause corrosion, and weaken the case or cause a misfire/hangfire condition.
- Ensure cases have proper primer pocket sizes; remove primer staking/crimp if necessary. Attempting to seat a primer into an undersized pocket or into a pocket with staking/crimping can result in detonation.
- Do not ream out or enlarge flash holes of cartridge cases. This may change the ignition rate and result in dangerous pressures.
- Resize and trim fired cases to ensure reliable chambering and obtain proper bullet tension and crimp.
- Never attempt to guess at the identity of your ammunition.

WORKING WITH BULLETS

- **CAUTION!** Handling bullets may result in exposure to lead, which is known to cause birth defects, reproductive harm and other serious physical injury. Wash hands thoroughly after handling.
- Use correct bullet caliber and design for your specific cartridge and configuration.

FEATURES

RCBS® Precisioneered Sizer Dies for bottleneck cases are vented, when required, to avoid case damage caused by trapped air, and are made to precise tolerances. Expander decapping units are made in three pieces instead of one, so individual pieces can be replaced if damaged. Seater Dies have a unique design that aligns the bullet with the case mouth an instant before seating. Interior polishing helps brass work smoothly with very little friction.



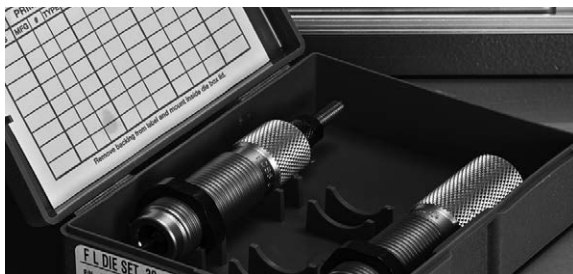
Once the die has been adjusted, tighten the setscrew to hold the proper setting.

All RCBS dies feature a steel Lock Ring with a hex design that allows tight control over precise adjustments. A solid brass setscrew locks the ring securely, yet will not damage the die threads. Once the Lock Ring on the die is set, it can be locked in the desired position by tightening the setscrew. The die will then hold the proper setting and may be reused in the same press without readjustment.

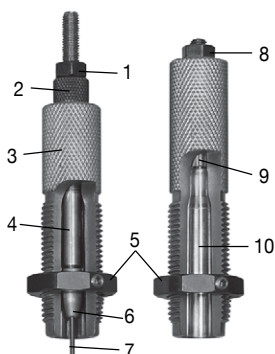
A piece of lead shot under the setscrew may prevent accidental stripping. Most RCBS dies are manufactured with the standard 7/8"-14 thread and are designed for use with a Shell Holder having a Slot Depth of 0.125". Any variations of these dimensions may cause headspace or insufficient sizing problems.

PACKAGING

Most RCBS dies are packaged in convenient plastic storage boxes specially designed by RCBS to protect your dies in shipment and during storage. A unique cradle holds the dies firmly in place to prevent damage and rolling around. Each box contains a label for recording your favorite loads and can be mounted on the inside lid for quick reference. A label on the outside of the box lists the die caliber for easy identification.



PARTS LIST FOR TWO-DIE SETS

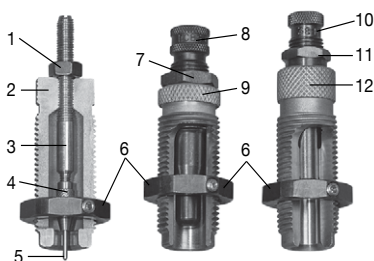


REPLACEMENT PARTS

The Expander-Decapping Unit (key 4, 6 and 7) and Decapping Pins (Key 7) may be available from your dealer. If not, they and all other replacement parts should be ordered from RCBS® Customer Service. See the back panel of this instruction booklet for the phone number or address.

KEY	PART #	DESCRIPTION
1	7109604	Lock Nut 1/4"–28
1	7109603	Lock Nut 10–32
2	–	Guide Bushing
3	–	Sizer Die Body
4	–	Expander-Decapping Rod
5	7787500	Die Lock Ring, 7/8"–14
6	–	Expander Ball
7	–	Decapping Pin
8	7109604	Lock Nut 1/4–28
9	–	Seater Plug
10	–	Seater Die

PARTS LIST FOR THREE-DIE SETS



REPLACEMENT PARTS

The Decapping Unit (key 3, 4 and 5) and Decapping Pins (Key 5) may be available from your dealer. If not, they and all other replacement parts should be ordered from RCBS Customer Service. See the back panel of this instruction booklet for the phone number or address.

KEY	PART #	DESCRIPTION
1	7109604	Lock Nut, 1/4"–28
2	–	Sizer Die
3	–	Decapping Rod
4	–	Decap Pin Holder
5	–	Decapping Pin
6	7787500	Die Lock Ring, 7/8"–14
7	7709615	Lock Nut, 9/16"–18
8	–	Expander
9	–	Expander Die Body
10	–	Seater Plug
11	7779000	Lock Nut 1/2"–20
11	7109604	Lock Nut 1/4"–28
12	–	Seater Die

CUSTOMER SERVICE

All RCBS dies are carefully checked and thoroughly inspected before shipping. They can be used to size, decap, expand and seat bullets using fired cases from any standard chamber. The cartridge name is stamped on every die and die box. Ensure the correct dies are being used for your firearm. Should the die perform unsatisfactorily, call or write to RCBS, explaining the problem in detail. Be sure to mention the caliber of dies and the year of manufacture. In most cases we can help you overcome the problem without the inconvenience and expense of returning the dies. If necessary, we will authorize the return of the die(s). Do not attempt to alter the dies in any way.

Seater Plugs are designed to fit most bullets of a given caliber. However, it is impossible to make one Seater Plug fit every possible variation in bullet style and weight. If the Seater Plug furnished with the Seater Die does not fit the bullet you are using, check the list of Alternate Seater Plugs in the current RCBS catalog. If you are unable to find the one you need, a custom Seater Plug can be produced. To do this, please provide us with five sample bullets along with your order and payment. Be sure to specify caliber and 1/4"-28 or 1/2"-20 thread size. Call, e-mail or write RCBS Customer Service for the current price so you can include payment and avoid any unnecessary delay. Note: We do not keep bullets on file, so you must send samples to guarantee a proper fit.

Send your order and payment with securely packed sample bullets to:
RCBS Customer Service
Custom Seater Plug
605 Oro Dam Blvd. East
Oroville, CA 95965-5718

A case stuck in the Sizer Die may be removed with an RCBS Stuck Case Remover or Stuck Case Remover-2, sold separately and available from your RCBS dealer. Or you may return the Sizer Die along with your name, address, daytime phone number and \$5.00 for return shipping and handling. We will remove the stuck case and inspect, repair or replace the Sizer Die under terms of the RCBS Limited Lifetime Warranty.

PREPARING THE DIES

Most Sizer Dies for bottleneck cases contain a small vent hole through which trapped air escapes during resizing. Sometimes the vent hole will plug up with materials from the manufacturing process. This can scratch and dent cases unless it is removed. To clean, unscrew the Expander Decap Unit 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 RCBS Die Cleaner or a similar solvent. Reassemble the die. **IMPORTANT:** We find that most scratching of the interior of a die is caused by nickel cases or grit on the brass case surface. If you are using nickel pistol cases, we recommend that you use a Carbide Sizer Die. This die is hard enough to resist the scratching nickel cases cause. Cleaning the case's exterior surface will prevent scratching of the internal die surface. Your cases should be cleaned periodically to protect both your dies and the chamber of your firearm. The RCBS Sidewinder Case Tumbler, Vibratory Case Cleaner, and Ultrasonic Cleaner are recommended for cleaning cases. Before storing dies, lightly spray them with RCBS Die Storage, or similar product, to protect them from rust.

PREPARING THE CASES

Clean and inspect cases before lubricating and sizing. Discard any cases with indications of a split neck or case head separation. Check cases for the correct overall length. If necessary, trim after sizing. If bullets are to be crimped, it is imperative that cases be trimmed to the same overall length. Trimmed case mouths should be deburred and lightly chamfered inside and out with RCBS deburring and case prep tools, or use an RCBS 3-Way Cutter in your case trimmer.



Lightly chamfer the case mouth with a Deburring Tool to remove rough edges for easier bullet seating.

Cases must be properly lubricated before sizing. Over-lubrication will result in a dented case shoulder. Improper or no lubrication may result in a case stuck in the Sizer Die. For best results use RCBS® Case Lube-2 applied to an RCBS Case Lube Pad or Case Slick® Spray Lube. Case mouths should be very lightly lubricated with an RCBS Case Neck Brush. These accessories are available from your dealer. Do not lubricate the shoulder of bottleneck-style cases. After the cases are lubricated they are ready to go through the reloading steps.



Roll cases on an RCBS Case Lube Pad for proper lubrication.

SIZING WITH CARBIDE SIZER DIES

Screw the Sizer Die into the press until the die touches the top of the Shell Holder when the Shell Holder is brought up to the top of the press stroke. Tighten the die Lock Ring. **DO NOT CAM OVER** on a carbide sizing die!

CARBIDE SIZER DIE

A Tungsten Carbide Sizer Die will give you a lifetime of perfect service if properly cared for. However, the die will not withstand severe impact such as dropping. The Shell Holder should never strike the bottom of the die. When using a Carbide Sizer Die, it is not necessary to lubricate a straight-wall pistol case. However, the .30 M-1 Carbine is heavy-walled, tapered, and must have some lubrication. The .500 S&W and .460 S&W need occasional lubrication as well. We recommend lightly lubricating every fourth or fifth case for best results. Screw the die into the press until it just touches the Shell Holder. **DO NOT CAM OVER.**



RCBS Steel Sizer Die is shown on left. The carbide insert is visible in the Carbide Sizer Die on the right.

SIZING WITH STEEL SIZER DIES

With the correct Shell Holder in the press ram and the ram at its uppermost position (handle all the way down), screw the Sizer Die into the press until the die touches the top of the Shell Holder. To ensure all play is removed from the press leverage system, raise the handle slightly, lowering the Shell Holder, and set the die one-eighth to one-quarter of a turn lower into the press frame. Return the handle to the lowest position and you will feel resistance as the Shell Holder contacts the bottom of the die. The handle will “pop” as the compound linkage of the press cams over. Set the large 7/8”-14 die Lock Ring and tighten the brass setscrew. Return the handle to the “up” position, and you are ready to size your lubricated cases.



Screw Sizer Die into press.

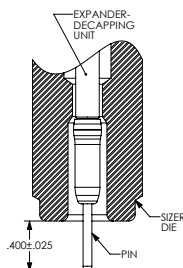


Steel Sizer Die adjusted to contact Shell Holder.

To adjust the Expander/ Decap Assembly: Loosen the small lock nut at the top of the die. Adjust the Expander/Decap Assembly so approximately 0.400" of the Decap Pin is below the end of the die (see cutaway illustration). Tighten the lock nut.

NOTE: This setting will work correctly for most common cartridge dies, including short ones like .22 Hornet and 5.7x28. Lowering or raising the Expander/Decap Unit from this position may cause damage to your die and/or cases.

For longer case lengths, the Expander/Decap Unit can be raised if desired. Ensure the Decap Pin is at least 3/16" below the end of the die and test the setup carefully and slowly. Damage to your cases may occur.

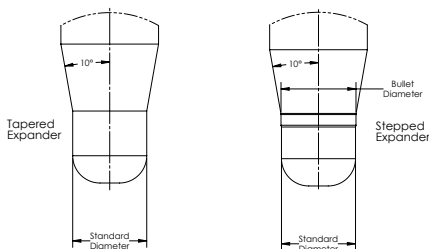


To prevent damage to Decap Pin, make sure the Expander/Decap Pin Assembly is centered in die body after tightening. If it is not centered, follow this procedure:

1. Loosen the Lock Nut on the Expander/Decap Pin Assembly
2. With the Decap Unit hanging loose, lube a case and run it up into the Sizer Die.
3. With the case still in the Sizer Die, tighten the Expander/Decap Pin Assembly Lock Nut.
4. Extract the case from the die, and the die from the press, and check to see if the Decap Unit is centered by rotating the die in the large Lock Nut.
5. If it is not centered, repeat the process; but this time, turn the Lock Nut over before locking it down. Occasionally one side of the Lock Nut is not square to the centerline of the rod, making it impossible to center the Decap Unit.

EXPANDING

Straight-wall cases require a separate die for expanding the case to receive a bullet. RCBS® has two different styles of expanders; the Tapered Expander, standard on die sets dated before 2010, and the Stepped (M-Style) Expander, standard on die sets made after 2010 (see illustration). To verify which type of expander your die has, loosen the Lock Nut on top of the die, unscrew the expander and remove it from the die to visually inspect. The Stepped Expander has a small surface below the 10° taper that expands the case mouth to the bullet diameter for easier bullet alignment (see illustration). The standard diameter on either style is approximately 0.002" smaller than bullet diameter.



For consistent case mouth expansion and bullet crimp during seating, cases should be trimmed to the same length. If cases are not trimmed, setting the expander for a consistent diameter will be difficult, as the various length cases will produce different expanded diameters at the case mouth.

⚠ WARNING! - excessive flaring of the case mouth can permanently damage (split) the case, causing a dangerous condition.

SETUP

Tapered Expanders

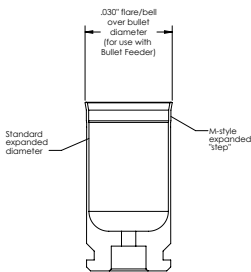
Lower the press handle, raising the ram to the top of the stroke. Thread the Expander Die body down into the press until it is just above the Shell Holder, lock the die Lock Ring. Loosen the Expander Plug Lock Ring and unscrew the Expander Plug out so that only two to three threads are engaged. Raise the handle and insert a SIZED case into the Shell Holder. Slowly lower the handle until you feel the case engage the Expander Plug; you should be able to lower the handle completely. At this point the Expander Plug has entered the case but is not set deeply enough. You should be able to screw the Expander Plug down into the case until you feel a slightly greater resistance. That resistance is the tapered portion of the Expander contacting the case mouth. Raise the press handle slightly and turn the Expander Plug down a half turn. Run the case back into the Expander and remove to inspect the amount of flare. Typically a flare diameter measurement of bullet diameter + 0.030", or less, is desirable. The objective is to expand and flare (bell) the case mouth just enough to accept the bullet when placed on top of the case. Adjust the expander for more or less flaring (belling) by loosening the Lock Nut on top of the die and turning the expander up or down.

Stepped Expanders

The Stepped Expander allows the user to expand a case to bullet diameter. This design provides a stepped "lead-in" to the case mouth to help align the bullet during seating. It works equally well with jacketed, plated or lead bullets. Jacketed bullets will, when correctly sized, "snap" into the upper expanded section. The Stepped Expander also works in conjunction with a case mouth flare (bell). The case mouth flare is optional with jacketed bullets, but recommended when using the RCBS Pistol Bullet Feeder (sold separately) or for lead bullets. A case mouth flare (bell) diameter measurement of bullet diameter + 0.030", or less, is desirable.

Lower the press handle, raising the ram to the top of the stroke. Thread the Expander Die body down into the press until it is just above the Shell Holder, lock the die Lock Ring. Loosen the expander plug Lock Ring and unscrew the Expander Plug out so that only two to three threads are engaged. Raise the handle and insert a SIZED case into the Shell Holder. Slowly lower the handle until you feel the case engage the Expander Plug; you should be able to lower the handle completely. At this point the Expander Plug has entered the case but is not set deeply enough. You should be able to screw the Expander Plug down into the case until you feel slightly more resistance. That resistance is the stepped portion of the expander contacting the case mouth. Raise the press handle slightly and turn the Stepped Expander Plug down a half turn. Run the case back into the expander and remove. Proceed to the section below covering the type of bullet being used—jacketed/plated or lead.

Jacketed/Plated Bullets: Using one of your jacketed/plated bullets, check if it will "snap" into the case mouth. If it does, simply lock the Expander Plug Lock Ring. If not, turn the Expander Plug into the die body another half turn and run the case back into the expander. Check if the bullet will now snap into the case mouth. Repeat until the desired setting is found and lock the Expander Plug Lock Ring. This is a trial-and-error adjustment. Case mouth flare (bell) can also be placed on the case mouth if desired. Simply adjust the expander down until case mouth flare (bell) is seen or measured.



Lead Bullets: Follow the procedure above for jacketed/plated bullets then proceed to flare the case mouth. Screw the Expander Plug down in half-turn increments. Each time you move the expander, cycle the case up into the Expander Die, remove the case and measure the case mouth again. Repeat this process until you achieve the desired flare diameter and then lock the Expander Plug Lock Ring.

BULLET SEATING WITHOUT CRIMPING

IMPORTANT: Please read instructions carefully. Do not adjust the Seater Die down against the Shell Holder, as it will distort or crush the case.

Many rifle and pistol bullets do not have a cannelure or crimping groove, and the bullet is therefore seated without crimping. Some rifle and pistol bullets have a cannelure or crimping groove; this is where the case mouth is crimped into the bullet. However, there are a few cartridges in which the

bullet should not be crimped even if it has a cannelure. These instructions are for seating the bullet without crimping.

1. Place a sized, primed and powder-charged case into the Shell Holder and run it to the top of the press stroke.
2. Screw the Seater Die into the press until you feel it touch the mouth of the case.
3. Back the die up one full turn and set the die Lock Ring.
4. Unscrew the Seat Plug several turns.
5. Lower the case and insert a bullet onto the case mouth. Slowly run the case into the Seater Die. Check the bullet for proper seating depth. If the bullet is not seated properly, adjust the bullet Seater Plug in small increments until the proper depth is obtained. Once the proper seating depth is attained, tighten the Seater Plug Lock Nut.

BULLET SEATING AND CRIMPING

For Roll Crimp

IMPORTANT: Please read instructions carefully. Do not adjust the Seater Die down against the Shell Holder, as it will distort or crush the case.

Roll Crimp is typically used for heavy-recoil rifle and pistol cartridges because it is more aggressive than Taper Crimp. If the bullet you are using has a cannelure or crimping groove, the bullet can be seated and roll-crimped using the following instructions.

⚠ WARNING! Cases must be trimmed to the same overall length to ensure a consistent crimp and prevent over-crimping, which can result in excessive pressure and create a dangerous condition.

The crimping feature is machined into the Seater Die body. It is not a special attachment to the Seater Plug. The die must be moved up or down to obtain the proper crimp adjustment.

1. Place a sized, primed and powder-charged case into the Shell Holder and run it to the top of the press stroke.
2. Screw the Seater Die into the press until you feel it touch the mouth of the case. This will be the Roll Crimp shoulder in the body of the die contacting the case mouth.
3. Back the die up (away from the case mouth) one full turn and temporarily set the die Lock Ring.
4. Unscrew the Seat Plug several turns.
5. Lower the case and insert a bullet onto the case mouth. Slowly run the case and bullet fully into the Seater Die. Check the bullet for proper seating depth.
6. Adjust the Bullet Seat Plug in small increments and repeat this process until the proper depth is obtained.
7. Next, adjust the die body to crimp. While the uncrimped cartridge is still fully inserted in the Seater Die, unscrew the Seater Plug a few turns. Screw the Seater Die downward until you feel it touch the mouth of the case. Lower the reloaded cartridge and adjust the Seater Die down about 1/8 turn. Run the reloaded cartridge fully into the die and then remove the cartridge to check the crimp. If more crimp is desired, repeat the preceding step by adjusting the die downward 1/8 turn at a time. Over-crimping of the cartridge will cause bulging and may affect chambering.

⚠ WARNING! Use care when crimping. Do not use excessive force, as doing so can damage the cartridge case and result in dangerous pressures and cause physical injury.

8. After you are satisfied with the crimp, set the die Lock Ring and run the completed cartridge into the Seater Die, then lower the Seater Plug until it touches the bullet. Tighten the Seater Plug Lock Nut. Once the Seater Die is properly adjusted, the bullet is seated and crimped in one operation.



Most Seater Dies in our three-die sets use a “through-the-top” style Seater Plug, as shown in this photo. This allows for easy cleaning.

BULLET SEATING AND CRIMPING

For Taper Crimp

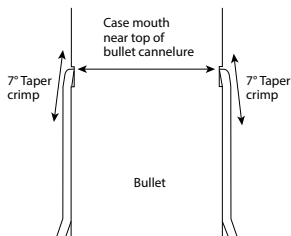
IMPORTANT: Please read instructions carefully. Do not adjust the Seater Die down against the Shell Holder, as it will distort or crush the case.

Bullets for many semi-automatic firearms are taper-crimped because the cartridge headspaces on the mouth of the case ensure proper feeding and functioning. It is also more forgiving than Roll Crimping and therefore desired for progressive reloading lower-recoil cartridges. Rifle bullets with a cannelure are best used with this type of crimp. (Note: Taper-Crimp Seater Dies are marked "TC" or "Taper Crimp" for easy identification.) The bullet can be seated and crimped using the following instructions.

⚠ WARNING! Cases must be trimmed to the same overall length to ensure a consistent crimp and prevent over-crimping, which can result in excessive pressure and create a dangerous condition.

The crimping feature is machined into the Seater Die body. It is not a special attachment to the Seater Plug. The die must be moved up or down to obtain the proper crimp adjustment.

1. Place a sized, primed and powder-charged case into the Shell Holder and run it to the top of the press stroke.
2. Screw the Taper Crimp Seat Die into the press until you feel a slight resistance. This will be the Taper Crimp shoulder in the body of the die contacting the case mouth.
3. Back the die up (away from the case mouth) one full turn and temporarily set the die Lock Ring.
4. Lower the case and insert a bullet into the case mouth. Slowly run the case up into the Seater Die and get the bullet seated part way into the case mouth.
5. Adjust the Bullet Seat Plug in small increments and repeat this process until the top of the cannelure of the bullet is seated to just above the case mouth (see illustration). If using bullets without a cannelure, seat to your desired Cartridge Over All Length (C.O.A.L.)
6. Check the bullet for proper seating depth.
7. Unscrew the Bullet Seat Plug a few turns to prevent it from contacting the bullet as you adjust the Seater Die body.
8. Loosen the Die Lock Ring and lower the press handle, raising the cartridge fully into the Seater Die.
9. Screw the Seater Die body down until you feel resistance of the Crimp Shoulder touching the mouth of the case. Continue to screw the die body down until you feel firm resistance. Use only finger pressure, do not use pliers or other tools!
10. Taper Crimps should be measured. The Taper Crimp angle is shallow, so you may not be able to see the amount of crimp being applied. Using the fine blade section of your calipers, measure the loaded round near the base of where the bullet is seated in the case neck. Then measure the case neck right at the case mouth. The case mouth measurement should be .001"-.002" smaller in diameter. Adjust the Taper Crimp Seater Die Body down 1/8 turn at a time until you get this measurement. This is a trial and error method.
11. After you are satisfied with the crimp, set the Die Lock Ring and run the completed cartridge into the Seater Die. Screw the Seater Plug down until it touches the bullet and tighten the Seater Plug Lock Nut. Once the Seater Die is properly adjusted, the bullet is seated and crimped in one operation.



TWO-DIE SET FOR BOTTLENECK RIFLE AND PISTOL CASES

The case is sized (full length, neck or small base), decapped, and expanded in one operation. Trim cases after the sizing and expanding operation. We suggest trimming to 0.010" less than the maximum length. The next step is to prime the case and fill it with the predetermined powder charge. Then seat the bullet. The reloader performs one operation at a time on each lot of cases; sizing and decapping, priming, filling them with powder, and then seating the bullets. If cast lead bullets are being used, you will need an RCBS® Neck Expander Die. This die expands a sized rifle case neck to the correct diameter and slightly flares (bells) the case mouth for easy bullet seating.

FULL LENGTH, NECK OR SMALL BASE SIZING

With the correct Shell Holder in the press ram and the ram at its uppermost position (handle all the way down), screw the Sizer Die (full length, neck or small base) into the press until the die touches the top of the Shell Holder. To ensure all play is removed from the press leverage system, raise the handle slightly, lower the Shell Holder and set the die 1/8 to 1/4 turn lower into the press frame. Return the handle to the lowest position. You will feel resistance as the Shell Holder contacts the bottom of the die and the handle will "pop" as the compound leverage of the press cams over. Set the large

7/8"-14 die Lock Ring and tighten the brass setscrew. Return the handle to the "up" position; you are now ready to size your lubricated cases.



Screw the Sizer Die into the reloading press.



Notice the Sizer Die is adjusted so it contacts the Shell Holder.



Place a bullet on top of the primed and powder-charged case.



The Seater Die will seat and, if required, crimp the bullet in one step.

THREE-DIE SET FOR STRAIGHT-WALL RIFLE AND PISTOL CASES

Reloading straight-wall type cases requires a three-die set, instead of a two-die set, because it is not possible to size and expand the mouth of a straight-walled case at the same time. In this three-die set, the first die sizes and decaps the case. The second die expands and flares (bells) the case mouth to receive the bullet, and the third die seats and, if necessary, crimps the bullet. If you are reloading .357 Magnum/.38 Special or .44 Magnum/.44 Special, please read the special notes that follow for important information.



SPECIAL NOTES FOR CERTAIN CALIBERS

.357 MAGNUM/.38 SPECIAL & .44 MAGNUM/.44 SPECIAL

These sets are furnished with a spacer ring for use in setting the dies (except the Sizer Die) for the longer magnum cases. Adjust the dies as directed in these instructions. Then use the spacer ring under the die Lock Ring only when reloading magnum cases. This will give the approximate setting. However additional adjustment may be necessary, depending upon the case length.



PRECISIONEERED RELOADING EQUIPMENT

We think 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)

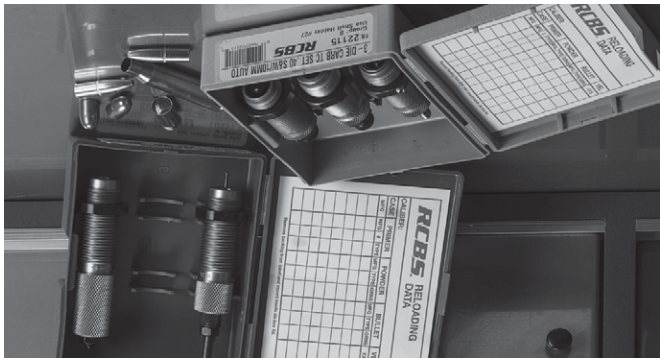
rcbs.tech@vistaoutdoor.com

rcbs.com

RCBS 605 Oro Dam Blvd East, Oroville, CA 95965

7200520/1219

PRODUCT INSTRUCTIONS



RELOADING DIES



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7200520/1219

WARNING!

Before using this product, read and follow these instructions carefully. Failure to do so could result in serious injury or death, or property damage.

If you have any questions while assembling or operating this product,

call us at 1-800-533-5000

Or email us at rcbs.tech@vistaoutdoor.com.

This instruction manual contains important safety and operating information. Keep this as a permanent part of your reloading equipment. If lost, contact us for a replacement.

NOTE: This die set is designed only for the specific cartridge imprinted on the die. Do not attempt to load cartridges using a die set intended for a different cartridge.

WARNING! Read and follow these precautions before attempting to resize cases.

- Do not attempt to resize a primed case with Decapping Pin installed.
- To ensure proper and safe headspacing, we recommend using RCBS dies only with RCBS Shell Holders.
- Never attempt to modify a Sizer Die or Shell Holder in any way. Doing so can result in incorrect headspace and create a dangerous condition.
- After resizing, always inspect case for dents, cracks, bulges or damage of any kind. Do not use if case is damaged.
- After resizing, measure case length and trim if necessary. Cases that are too long can result in excessive pressures and create a dangerous condition.

WARNING! Read and follow these precautions before attempting to expand cases.

- Do not overflare (bell) straight-wall cases. Excessive flaring can cause premature mouth splits, and result in a dangerous condition.

WARNING! Read and follow these precautions before attempting to seat bullets.

- Ensure bullets are seated at the proper depth. Seating bullets too high or too low can result in excessive pressures, a bullet in the bore, or other dangerous conditions. Measure for proper Cartridge Over All Length (C.O.A.L.) after seating.
- When the loaded cartridge is seated in the chamber, under no circumstances should the bullet touch the bore rifling. Dangerous pressures could result.
- For lead cast bullet loading, periodically disassemble and clean the Seater Die and Seat Plug to prevent excess buildup of lubricant. Excess lubricant can result in bullets being seated too deep.
- Inspect case for proper charge before seating bullet. RCBS recommends charging and inspecting all cases before beginning bullet seating. This ensures they are uniform and correct.
- Use slow, even pressure when seating bullets on compressed charges. Inspect case for bulging or cracking before use.
- Use care when crimping. Do not use excessive force, as doing so can damage the cartridge case and result in dangerous pressures.

LIFETIME LIMITED WARRANTY

Your RCBS Reloading Dies are warranted to be free from defects in material or workmanship for as long as the original owner owns them. This warranty is extended only to the original consumer purchaser. All RCBS® products are intended for non-commercial use by hobbyists. Any other use of these products will void the warranty. If you believe that your product is covered by this warranty, you must return the product to RCBS at the address shown, postage paid, with proof of purchase for evaluation. If covered, we will (at our sole option) repair, replace, or refund the purchase price of any part or product found to be defective. This remedy will be without charge except for reasonable shipping, handling and insurance charges.

TO ENSURE ACCURACY OF YOUR WARRANTY INFORMATION, SEND YOUR DATED PROOF OF PURCHASE TO THE ADDRESS BELOW. This limited warranty does not cover defects or damage resulting from carelessness, misuse, commercial use, abuse, neglect, improper installation or assembly, water submersion, unauthorized or improper repair, failure to follow

operation instructions, modification or normal wear and tear.

ANY WARRANTIES IMPLIED BY LAW SHALL IN NO EVENT EXTEND BEYOND DURATION OF THIS EXPRESS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

REPAIR OR REPLACEMENT AS PROVIDED HEREIN IS YOUR EXCLUSIVE REMEDY FOR ANY DEFECTIVE PRODUCT. IN NO EVENT SHALL WE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND ARISING OUT OF THE PURCHASE OR USE OF THIS PRODUCT, WHETHER BASED UPON CONTRACT, TORT, STATUTE OR OTHERWISE. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

CONTACT US:
RCBS
605 Oro Dam Blvd East Oroville, California, 95965
1-800-533-5000
E-mail: rcbs.tech@vistaoutdoor.com
Website: rcbs.com

RELOADING SAFETY

NOTICE - This manual is not intended to provide comprehensive instructions or safety information on how to reload, or how to handle or use reloading components. Always read and thoroughly understand a reloading manual before attempting to reload ammunition.

Reloading is an enjoyable and rewarding hobby when conducted safely. But, as with many hobbies, carelessness or negligence can make reloading hazardous. When reloading, always follow these safety guidelines to minimize the risk of personal injury or death.

- Always wear safety glasses.
- Understand what you are doing and why. Read handbooks and manuals on reloading. Talk to experienced reloaders. Write or call suppliers of equipment or components if you have questions or are in doubt.
- Read and understand all warnings and instructions accompanying your equipment and components. If you do not have written instructions, request a copy from the manufacturer. Keep instructions for future reference.
- Do not rush or take short cuts. Establish a routine and follow it at a leisurely pace.
- Keep complete records of reloads. Label each box showing the date produced, and the type of primer, powder and bullet used.
- Do not smoke while reloading, or reload near sources of heat, sparks or flame.
- Observe good housekeeping in the reloading area. Keep tools and components neat, clean and orderly. Promptly and completely clean up any spills.
- Keep all reloading equipment and components out of reach of children.
- Stay alert. Reload only when you can give your undivided attention. Do not reload when tired, ill, rushed or under the influence of drugs or alcohol.

Because RCBS® has no control over the choice, assembly or use of components or other reloading equipment, RCBS assumes no liability, expressed or implied, for the use of ammunition reloaded with this product.

LOADING DATA

Use only laboratory tested reloading data. We highly recommend the current Speer® Reloading Manual.

CAUTION! OBSERVE ALL WARNINGS ABOUT THE USE OF MAXIMUM LISTED LOADS.

WORKING WITH CARTRIDGE CASES

- Examine empty cases to be sure they are in good condition before reloading. Thin, split, deformed, or badly corroded or pitted cases may be structurally weak, and result in a dangerous condition. Pay particular attention to splits in the mouth, separation between the case and the head, and dents in the shoulder.
- Do not store cartridge cases or ammunition near harsh chemicals such as gasoline, household cleaners or cat urine. The fumes can weaken the metal and present a dangerous condition.
- Do not clean cases with chemicals other than those specifically designed

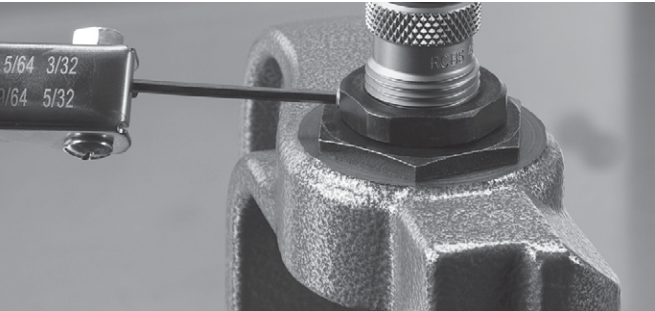
- for the purpose.
- Do not attempt to clean loaded ammunition or primed cases. Doing so can cause corrosion, and weaken the case or cause a misfire/hangfire condition.
- Ensure cases have proper primer pocket sizes; remove primer staking/crimp if necessary. Attempting to seat a primer into an undersized pocket or into a pocket with staking/crimping can result in detonation.
- Do not ream out or enlarge flash holes of cartridge cases. This may change the ignition rate and result in dangerous pressures.
- Resize and trim fired cases to ensure reliable chambering and obtain proper bullet tension and crimp.
- Never attempt to guess at the identity of your ammunition.

WORKING WITH BULLETS

- CAUTION!** Handling bullets may result in exposure to lead, which is known to cause birth defects, reproductive harm and other serious physical injury. Wash hands thoroughly after handling.
- Use correct bullet caliber and design for your specific cartridge and configuration.

FEATURES

RCBS® Precisioneered Sizer Dies for bottleneck cases are vented, when required, to avoid case damage caused by trapped air, and are made to precise tolerances. Expander decapping units are made in three pieces instead of one, so individual pieces can be replaced if damaged. Seater Dies have a unique design that aligns the bullet with the case mouth an instant before seating. Interior polishing helps brass work smoothly with very little friction.



Once the die has been adjusted, tighten the setscrew to hold the proper setting.

All RCBS dies feature a steel Lock Ring with a hex design that allows tight control over precise adjustments. A solid brass setscrew locks the ring securely, yet will not damage the die threads. Once the Lock Ring on the die is set, it can be locked in the desired position by tightening the setscrew. The die will then hold the proper setting and may be reused in the same press without readjustment.

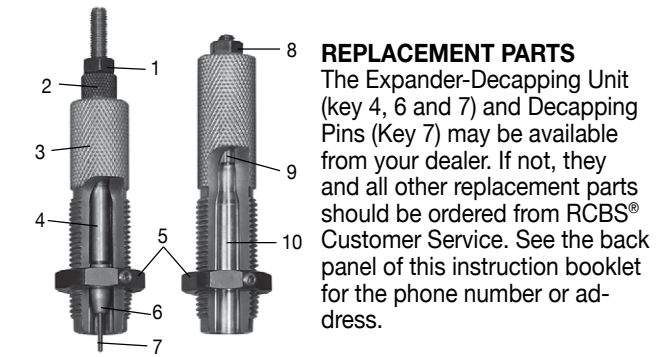
A piece of lead shot under the setscrew may prevent accidental stripping. Most RCBS dies are manufactured with the standard 7/8"-14 thread and are designed for use with a Shell Holder having a Slot Depth of 0.125". Any variations of these dimensions may cause headspace or insufficient sizing problems.

PACKAGING

Most RCBS dies are packaged in convenient plastic storage boxes specially designed by RCBS to protect your dies in shipment and during storage. A unique cradle holds the dies firmly in place to prevent damage and rolling around. Each box contains a label for recording your favorite loads and can be mounted on the inside lid for quick reference. A label on the outside of the box lists the die caliber for easy identification.



PARTS LIST FOR TWO-DIE SETS

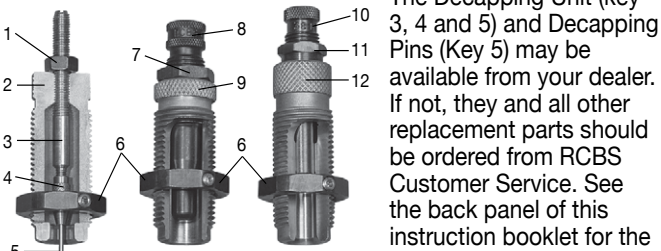


KEY	PART #	DESCRIPTION
1	7109604	Lock Nut 1/4"-28
1	7109603	Lock Nut 10-32
2	-	Guide Bushing
3	-	Sizer Die Body
4	-	Expander-Decapping Rod
5	7787500	Die Lock Ring, 7/8"-14
6	-	Expander Ball
7	-	Decapping Pin
8	7109604	Lock Nut 1/4"-28
9	-	Seater Plug
10	-	Seater Die

PARTS LIST FOR THREE-DIE SETS

REPLACEMENT PARTS

The Decapping Unit (key 3, 4 and 5) and Decapping Pins (Key 7) may be available from your dealer. If not, they and all other replacement parts should be ordered from RCBS Customer Service. See the back panel of this instruction booklet for the phone number or address.



KEY	PART #	DESCRIPTION
1	7109604	Lock Nut, 1/4"-28
2	-	Sizer Die
3	-	Decapping Rod
4	-	Decap Pin Holder
5	-	Decapping Pin
6	7787500	Die Lock Ring, 7/8"-14
7	7709615	Lock Nut, 9/16"-18
8	-	Expander
9	-	Expander Die Body
10	-	Seater Plug
11	7779000	Lock Nut 1/2"-20
11	7109604	Lock Nut 1/4"-28
12	-	Seater Die

CUSTOMER SERVICE

All RCBS dies are carefully checked and thoroughly inspected before shipping. They can be used to size, decap, expand and seat bullets using fired cases from any standard chamber. The cartridge name is stamped on every die and die box. Ensure the correct dies are being used for your firearm. Should the die perform unsatisfactorily, call or write to RCBS, explaining the problem in detail. Be sure to mention the caliber of dies and the year of manufacture. In most cases we can help you overcome the problem without the inconvenience and expense of returning the dies. If necessary, we will authorize the return of the die(s). Do not attempt to alter the dies in any way.

Seater Plugs are designed to fit most bullets of a given caliber. However, it is impossible to make one Seater Plug fit every possible variation in bullet style and weight. If the Seater Plug furnished with the Seater Die does not fit the bullet you are using, check the list of Alternate Seater Plugs in the current RCBS catalog. If you are unable to find the one you need, a custom Seater Plug can be produced. To do this, please provide us with five sample bullets along with your order and payment. Be sure to specify caliber and 1/4"-28 or 1/2"-20 thread size. Call, e-mail or write RCBS Customer Service for the current price so you can include payment and avoid any unnecessary delay. Note: We do not keep bullets on file, so you must send samples to guarantee a proper fit.

Send your order and payment with securely packed sample bullets to:
RCBS Customer Service
Custom Seater Plug
605 Oro Dam Blvd. East
Oroville, CA 95965-5718

A case stuck in the Sizer Die may be removed with an RCBS Stuck Case Remover or Stuck Case Remover-2, sold separately and available from your RCBS dealer. Or you may return the Sizer Die along with your name, address, daytime phone number and \$5.00 for return shipping and handling. We will remove the stuck case and inspect, repair or replace the Sizer Die under terms of the RCBS Limited Lifetime Warranty.

PREPARING THE DIES

Most Sizer Dies for bottleneck cases contain a small vent hole through which trapped air escapes during resizing. Sometimes the vent hole will plug up with materials from the manufacturing process. This can scratch and dent cases unless it is removed. To clean, unscrew the Expander Decap Unit 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 RCBS Die Cleaner or a similar solvent. Reassemble the die. IMPORTANT: We find that most scratching of the interior of a die is caused by nickel cases or grit on the brass case surface. If you are using nickel pistol cases, we recommend that you use a Carbide Sizer Die. This die is hard enough to resist the scratching nickel cases cause. Cleaning the case's exterior surface will prevent scratching of the internal die surface. Your cases should be cleaned periodically to protect both your dies and the chamber of your firearm. The RCBS Sidewinder Case Tumbler, Vibratory Case Cleaner, and Ultrasonic Cleaner are recommended for cleaning cases. Before storing dies, lightly spray them with RCBS Die Storage, or similar product, to protect them from rust.

PREPARING THE CASES

Clean and inspect cases before lubricating and sizing. Discard any cases with indications of a split neck or case head separation. Check cases for the correct overall length. If necessary, trim after sizing. If bullets are to be crimped, it is imperative that cases be trimmed to the same overall length. Trimmed case mouths should be deburred and lightly chamfered inside and out with RCBS deburring and case prep tools, or use an RCBS 3-Way Cutter in your case trimmer.



Lightly chamfer the case mouth with a Deburring Tool to remove rough edges for easier bullet seating.

Cases must be properly lubricated before sizing. Over-lubrication will result in a dented case shoulder. Improper or no lubrication may result in a case stuck in the Sizer Die. For best results use RCBS® Case Lube-2 applied to an RCBS Case Lube Pad or Case Slick® Spray Lube. Case mouths should be very lightly lubricated with an RCBS Case Neck Brush. These accessories are available from your dealer. Do not lubricate the shoulder of bottleneck-style cases. After the cases are lubricated they are ready to go through the reloading steps.



Roll cases on an RCBS Case Lube Pad for proper lubrication.

SIZING WITH CARBIDE SIZER DIES

Screw the Sizer Die into the press until the die touches the top of the Shell Holder when the Shell Holder is brought up to the top of the press stroke. Tighten the die Lock Ring. DO NOT CAM OVER on a carbide sizing die!

CARBIDE SIZER DIE

A Tungsten Carbide Sizer Die will give you a lifetime of perfect service if properly cared for. However, the die will not withstand severe impact such as dropping. The Shell Holder should never strike the bottom of the die. When using a Carbide Sizer Die, it is not necessary to lubricate a straight-wall pistol case. However, the .30 M-1 Carbine is heavy-walled, tapered, and must have some lubrication. The .500 S&W and .460 S&W need occasional lubrication as well. We recommend lightly lubricating every fourth or fifth case for best results. Screw the die into the press until it just touches the Shell Holder. DO NOT CAM OVER.



RCBS Steel Sizer Die is shown on left. The carbide insert is visible in the Carbide Sizer Die on the right.

SIZING WITH STEEL SIZER DIES

With the correct Shell Holder in the press ram and the ram at its uppermost position (handle all the way down), screw the Sizer Die into the press until the die touches the top of the Shell Holder. To ensure all play is removed from the press leverage system, raise the handle slightly, lowering the Shell Holder, and set the die one-eighth to one-quarter of a turn lower into the press frame. Return the handle to the lowest position and you will feel resistance as the Shell Holder contacts the bottom of the die. The handle will “pop” as the compound linkage of the press cams over. Set the large 7/8”-14 die Lock Ring and tighten the brass setscrew. Return the handle to the “up” position, and you are ready to size your lubricated cases.



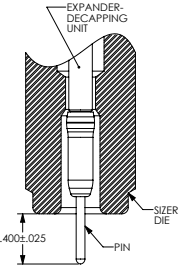
Screw Sizer Die into press.



Steel Sizer Die adjusted to contact Shell Holder.

To adjust the Expander/ Decap Assembly: Loosen the small lock nut at the top of the die. Adjust the Expander/Decap Assembly so approximately 0.400” of the Decap Pin is below the end of the die (see cutaway illustration). Tighten the lock nut.

NOTE: This setting will work correctly for most common cartridge dies, including short ones like .22 Hornet and 5.7x28. Lowering or raising the Expander/Decap Unit from this position may cause damage to your die and/or cases. For longer case lengths, the Expander/Decap Unit can be raised if desired. Ensure the Decap Pin is at least 3/16” below the end of the die and test the setup carefully and slowly. Damage to your cases may occur.

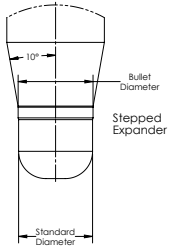
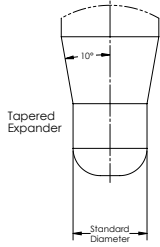


To prevent damage to Decap Pin, make sure the Expander/Decap Pin Assembly is centered in die body after tightening. If it is not centered, follow this procedure:

1. Loosen the Lock Nut on the Expander/Decap Pin Assembly
2. With the Decap Unit hanging loose, lube a case and run it up into the Sizer Die.
3. With the case still in the Sizer Die, tighten the Expander/Decap Pin Assembly Lock Nut.
4. Extract the case from the die, and the die from the press, and check to see if the Decap Unit is centered by rotating the die in the large Lock Nut.
5. If it is not centered, repeat the process; but this time, turn the Lock Nut over before locking it down. Occasionally one side of the Lock Nut is not square to the centerline of the rod, making it impossible to center the Decap Unit.

EXPANDING

Straight-wall cases require a separate die for expanding the case to receive a bullet. RCBS® has two different styles of expanders; the Tapered Expander, standard on die sets dated before 2010, and the Stepped (M-Style) Expander, standard on die sets made after 2010 (see illustration). To verify which type of expander your die has, loosen the Lock Nut on top of the die, unscrew the expander and remove it from the die to visually inspect. The Tapered Expander has a small surface below the 10° taper that expands the case mouth to the bullet diameter for easier bullet alignment (see illustration). The standard diameter on either style is approximately 0.002” smaller than bullet diameter.



For consistent case mouth expansion and bullet crimp during seating, cases should be trimmed to the same length. If cases are not trimmed, setting the expander for a consistent diameter will be difficult, as the various length cases will produce different expanded diameters at the case mouth. **▲WARNING!** - excessive flaring of the case mouth can permanently damage (split) the case, causing a dangerous condition.

SETUP

Tapered Expanders

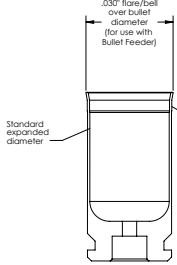
Lower the press handle, raising the ram to the top of the stroke. Thread the Expander Die body down into the press until it is just above the Shell Holder, lock the die Lock Ring. Loosen the Expander Plug Lock Ring and unscrew the Expander Plug out so that only two to three threads are engaged. Raise the handle and insert a SIZED case into the Shell Holder. Slowly lower the handle until you feel the case engage the Expander Plug; you should be able to lower the handle completely. At this point the Expander Plug has entered the case but is not set deeply enough. You should be able to screw the Expander Plug down into the case until you feel a slightly greater resistance. That resistance is the tapered portion of the Expander contacting the case mouth. Raise the press handle slightly and turn the Expander Plug down a half turn. Run the case back into the Expander and remove to inspect the amount of flare. Typically a flare diameter measurement of bullet diameter + 0.030”, or less, is desirable. The objective is to expand and flare (bell) the case mouth just enough to accept the bullet when placed on top of the case. Adjust the expander for more or less flaring (belling) by loosening the Lock Nut on top of the die and turning the expander up or down.

Stepped Expanders

The Stepped Expander allows the user to expand a case to bullet diameter. This design provides a stepped “lead-in” to the case mouth to help align the bullet during seating. It works equally well with jacketed, plated or lead bullets. Jacketed bullets will, when correctly sized, “snap” into the upper expanded section. The Stepped Expander also works in conjunction with a case mouth flare (bell). The case mouth flare is optional with jacketed bullets, but recommended when using the RCBS Pistol Bullet Feeder (sold separately) or for lead bullets. A case mouth flare (bell) diameter measurement of bullet diameter + 0.030”, or less, is desirable.

Lower the press handle, raising the ram to the top of the stroke. Thread the Expander Die body down into the press until it is just above the Shell Holder, lock the die Lock Ring. Loosen the expander plug Lock Ring and unscrew the Expander Plug out so that only two to three threads are engaged. Raise the handle and insert a SIZED case into the Shell Holder. Slowly lower the handle until you feel the case engage the Expander Plug; you should be able to lower the handle completely. At this point the Expander Plug has entered the case but is not set deeply enough. You should be able to screw the Expander Plug down into the case until you feel slightly more resistance. That resistance is the stepped portion of the expander contacting the case mouth. Raise the press handle slightly and turn the Stepped Expander Plug down a half turn. Run the case back into the expander and remove. Proceed to the section below covering the type of bullet being used—jacketed/plated or lead.

Jacketed/Plated Bullets: Using one of your jacketed/plated bullets, check if it will “snap” into the case mouth. If it does, simply lock the Expander Plug Lock Ring. If not, turn the Expander Plug into the die body another half turn and run the case back into the expander. Check if the bullet will now snap into the case mouth. Repeat until the desired setting is found and lock the Expander Plug Lock Ring. This is a trial-and-error adjustment. Case mouth flare (bell) can also be placed on the case mouth if desired. Simply adjust the expander down until case mouth flare (bell) is seen or measured.



Lead Bullets: Follow the procedure above for jacketed/plated bullets then proceed to flare the case mouth. Screw the Expander Plug down in half-turn increments. Each time you move the expander, cycle the case up into the Expander Die, remove the case and measure the case mouth again. Repeat this process until you achieve the desired flare diameter and then lock the Expander Plug Lock Ring.

BULLET SEATING WITHOUT CRIMPING

IMPORTANT: Please read instructions carefully. Do not adjust the Seater Die down against the Shell Holder, as it will distort or crush the case.

Many rifle and pistol bullets do not have a cannelure or crimping groove, and the bullet is therefore seated without crimping. Some rifle and pistol bullets have a cannelure or crimping groove; this is where the case mouth is crimped into the bullet. However, there are a few cartridges in which the

bullet should not be crimped even if it has a cannelure. These instructions are for seating the bullet without crimping.

1. Place a sized, primed and powder-charged case into the Shell Holder and run it to the top of the press stroke.
2. Screw the Seater Die into the press until you feel it touch the mouth of the case.
3. Back the die up one full turn and set the die Lock Ring.
4. Unscrew the Seat Plug several turns.
5. Lower the case and insert a bullet onto the case mouth. Slowly run the case into the Seater Die. Check the bullet for proper seating depth. If the bullet is not seated properly, adjust the bullet Seater Plug in small increments until the proper depth is obtained. Once the proper seating depth is attained, tighten the Seater Plug Lock Nut.

BULLET SEATING AND CRIMPING

For Roll Crimp

IMPORTANT: Please read instructions carefully. Do not adjust the Seater Die down against the Shell Holder, as it will distort or crush the case.

Roll Crimp is typically used for heavy-recoil rifle and pistol cartridges because it is more aggressive than Taper Crimp. If the bullet you are using has a cannelure or crimping groove, the bullet can be seated and roll-crimped using the following instructions. **▲WARNING!** Cases must be trimmed to the same overall length to ensure a consistent crimp and prevent over-crimping, which can result in excessive pressure and create a dangerous condition.

The crimping feature is machined into the Seater Die body. It is not a special attachment to the Seater Plug. The die must be moved up or down to obtain the proper crimp adjustment.

1. Place a sized, primed and powder-charged case into the Shell Holder and run it to the top of the press stroke.
2. Screw the Seater Die into the press until you feel it touch the mouth of the case. This will be the Roll Crimp shoulder in the body of the die contacting the case mouth.
3. Back the die up (away from the case mouth) one full turn and temporarily set the die Lock Ring.
4. Unscrew the Seat Plug several turns.
5. Lower the case and insert a bullet onto the case mouth. Slowly run the case and bullet fully into the Seater Die. Check the bullet for proper seating depth.
6. Adjust the Bullet Seat Plug in small increments and repeat this process until the proper depth is obtained.
7. Next, adjust the die body to crimp. While the uncrimped cartridge is still fully inserted in the Seater Die, unscrew the Seater Plug a few turns. Screw the Seater Die downward until you feel it touch the mouth of the case. Lower the reloaded cartridge and adjust the Seater Die down about 1/8 turn. Run the reloaded cartridge fully into the die and then remove the cartridge to check the crimp. If more crimp is desired, repeat the preceding step by adjusting the die downward 1/8 turn at a time. Over-crimping of the cartridge will cause bulging and may affect chambering. **▲WARNING!** Use care when crimping. Do not use excessive force, as doing so can damage the cartridge case and result in dangerous pressures and cause physical injury.
8. After you are satisfied with the crimp, set the die Lock Ring and run the completed cartridge into the Seater Die, then lower the Seater Plug until it touches the bullet. Tighten the Seater Plug Lock Nut. Once the Seater Die is properly adjusted, the bullet is seated and crimped in one operation.



Most Seater Dies in our three-die sets use a “through-the-top” style Seater Plug, as shown in this photo. This allows for easy cleaning.

BULLET SEATING AND CRIMPING

For Taper Crimp

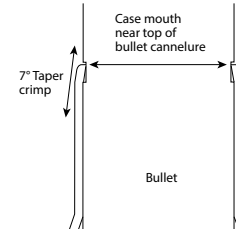
IMPORTANT: Please read instructions carefully. Do not adjust the Seater Die down against the Shell Holder, as it will distort or crush the case.

Bullets for many semi-automatic firearms are taper-crimped because the cartridge headspaces on the mouth of the case ensure proper feeding and functioning. It is also more forgiving than Roll Crimping and therefore desired for progressive reloading lower-recoil cartridges. Rifle bullets with a cannelure are best used with this type of crimp. (Note: Taper-Crimp Seater Dies are marked “TC” or “Taper Crimp” for easy identification.) The bullet can be seated and crimped using the following instructions.

▲WARNING! Cases must be trimmed to the same overall length to ensure a consistent crimp and prevent over-crimping, which can result in excessive pressure and create a dangerous condition.

The crimping feature is machined into the Seater Die body. It is not a special attachment to the Seater Plug. The die must be moved up or down to obtain the proper crimp adjustment.

1. Place a sized, primed and powder-charged case into the Shell Holder and run it to the top of the press stroke.
2. Screw the Taper Crimp Seat Die into the press until you feel a slight resistance. This will be the Taper Crimp shoulder in the body of the die contacting the case mouth.
3. Back the die up (away from the case mouth) one full turn and temporarily set the die Lock Ring.
4. Lower the case and insert a bullet into the case mouth. Slowly run the case up into the Seater Die and get the bullet seated part way into the case mouth.
5. Adjust the Bullet Seat Plug in small increments and repeat this process until the top of the cannelure of the bullet is seated to just above the case mouth (see illustration). If using bullets without a cannelure, seat to your desired Cartridge Over All Length (C.O.A.L.)
6. Check the bullet for proper seating depth.
7. Unscrew the Bullet Seat Plug a few turns to prevent it from contacting the bullet as you adjust the Seater Die body.
8. Loosen the Die Lock Ring and lower the press handle, raising the cartridge fully into the Seater Die.
9. Screw the Seater Die body down until you feel resistance of the Crimp Shoulder touching the mouth of the case. Continue to screw the die body down until you feel firm resistance. Use only finger pressure, do not use pliers or other tools!
10. Taper Crimps should be measured. The Taper Crimp angle is shallow, so you may not be able to see the amount of crimp being applied. Using the fine blade section of your calipers, measure the loaded round near the base of where the bullet is seated in the case neck. Then measure the case neck right at the case mouth. The case mouth measurement should be .001”-.002” smaller in diameter. Adjust the Taper Crimp Seater Die Body down 1/8 turn at a time until you get this measurement. This is a trial and error method.
11. After you are satisfied with the crimp, set the Die Lock Ring and run the completed cartridge into the Seater Die. Screw the Seater Plug down until it touches the bullet and tighten the Seater Plug Lock Nut. Once the Seater Die is properly adjusted, the bullet is seated and crimped in one operation.



Place a bullet on top of the primed and powder-charged case.

The Seater Die will seat and, if required, crimp the bullet in one step.

THREE-DIE SET FOR STRAIGHT-WALL RIFLE AND PISTOL CASES

Reloading straight-wall type cases requires a three-die set, instead of a two-die set, because it is not possible to size and expand the mouth of a straight-walled case at the same time. In this three-die set, the first die sizes and decaps the case. The second die expands and flares (bells) the case mouth to receive the bullet, and the third die seats and, if necessary, crimps the bullet. If you are reloading .357 Magnum/.38 Special or .44 Magnum/.44 Special, please read the special notes that follow for important information.



SPECIAL NOTES FOR CERTAIN CALIBERS

.357 MAGNUM/.38 SPECIAL & .44 MAGNUM/.44 SPECIAL

These sets are furnished with a spacer ring for use in setting the dies (except the Sizer Die) for the longer magnum cases. Adjust the dies as directed in these instructions. Then use the spacer ring under the die Lock Ring only when reloading magnum cases. This will give the approximate setting. However additional adjustment may be necessary, depending upon the case length.