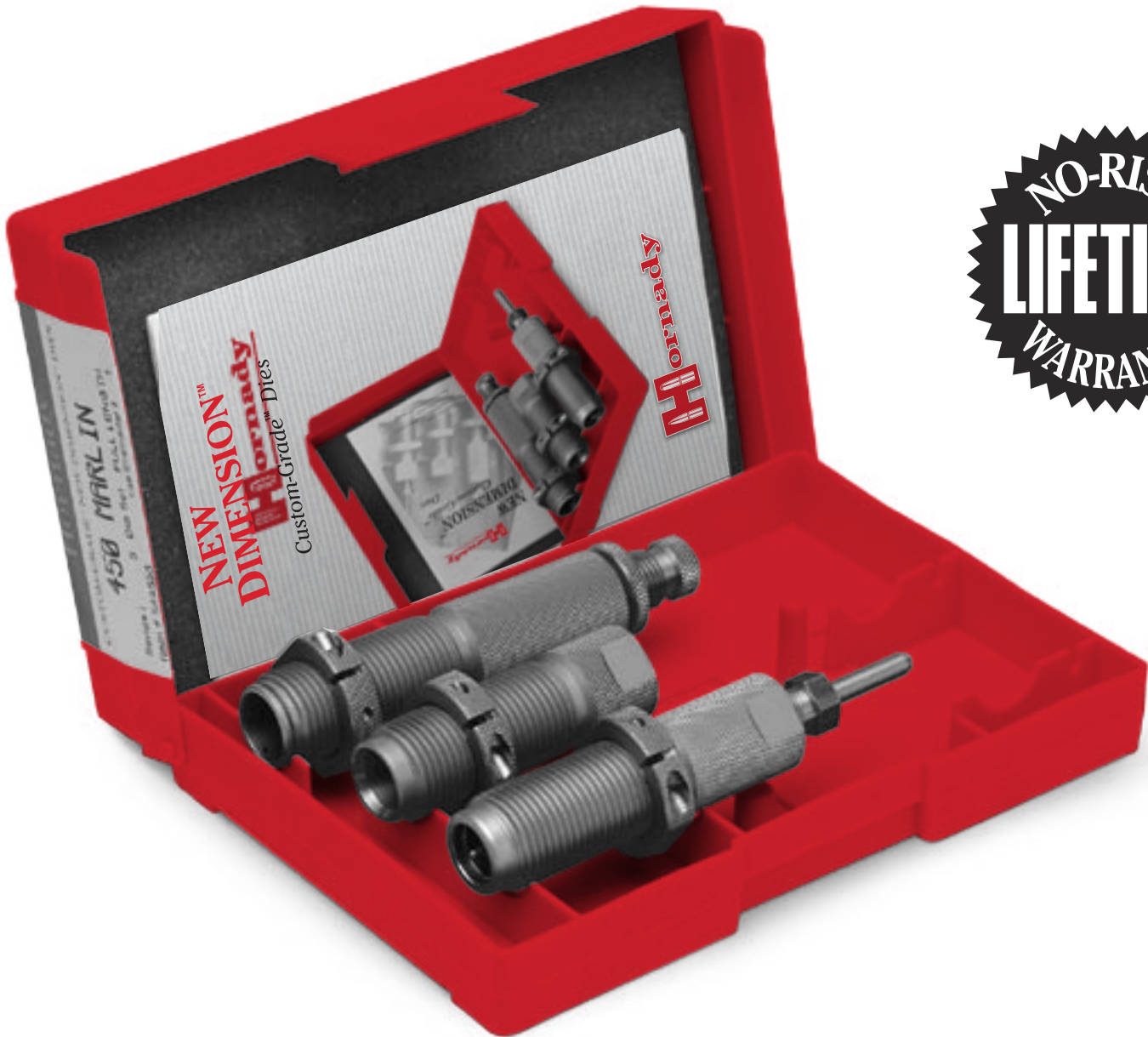


NEW DIMENSION™

Custom-Grade™ Dies



BEFORE USING DIES

Before using your new dies, disassemble and carefully clean the inside surface of the sizing and seating dies (and the expander die if a three-die set.) A rust preventive oil is applied at the factory to protect the dies during shipping and **must be removed before reloading.** Any commercial solvent or cleaner (like our ONE SHOT Gun Cleaner and Dry Lube) will suffice.

Inspect all cartridge cases and discard those with cracks, splits and other visible defects. Wipe cases clean with a soft cloth to remove grit and other foreign matter which may scratch the die. Before sizing, lubricate the cases with one of the case lubes available from Hornady (ONE SHOT Case Lube or UNIQUE, a hard paste.) No matter the method of lubrication, all rifle cases must be lubricated (**Hornady's Titanium Nitride three-die sets are lube-free.**) We don't recommend the use of oil-type lubes; they may contaminate the powder inside the case.

Little or no lube on rifle cases will result in a stuck case. Over-lubrication will cause dents in the shoulder, damaging appearance. (If you do get a case stuck in a die, we can remove the case without damaging the die and return it to you. Enclose \$4.00 for postage and handling.)

ADJUSTING THE SEATING DIE

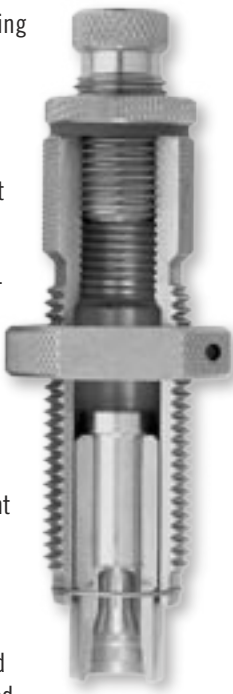
Hornady bullet seating dies feature a floating in-line sleeve designed to minimize bullet run-out (misalignment caused by tipped bullet.) The cartridge neck and bullet are aligned in the floating sleeve prior to seating the bullet for in-line, precise bullet seating.

These universal seating dies are manufactured by caliber (.224, .243, .308, .358, etc...) and not by specific cartridge (222 Remington, 240 Weatherby Magnum, 30-30 Winchester, 35 Whelen, etc...)

Prior to seating, make sure the steel seating stem is positioned in the alignment sleeve (see die parts list.) Also, make sure the cases are chamfered before seating.

When properly adjusted, Hornady's seating die may appear as though it's not threaded far enough into the press (they are adjusted for long or short cases). Don't be alarmed. As few as three threads need be screwed into the die for precise and accurate reloading.

(Note: As with all seating dies, when seating lubricated lead bullets, lubricant will build-up within the die causing variations in seating. Clean and inspect as needed.)



ADJUSTING THE SIZE DIE

To adjust the expander/decap assembly:

1. Loosen the spindle lock.
2. Adjust the spindle so approximately 3/16" of the decap pin is below the end of the die (SEE PHOTO.)
3. Tighten the spindle lock. If not tightened sufficiently, the spindle will back out the top of the die when deprimed, or it will pull out of the die when the ram is lowered. If the spindle is adjusted too high, the primer may not be expelled and a new primer cannot be seated.



Hornady's Elliptical Expander/Decap Assembly (two-die sets only) is designed to ease the stress on cases when full-length sizing because it has less bearing surface than other long, straight, expanders or short, blunt expanders-reducing the frequency of trimming cases.

To adjust the full-length size die, follow these steps:

1. Raise the press ram to highest position **without camming over.**
2. Thread the full-length die into the press until the base touches the shell holder head.
3. Tighten the lock ring against the press and tighten the set screw with the allen wrench.
4. Adjust the expander/decap assembly.

(Note: Firearm action types and chamber dimensions vary causing excess headspace. To eliminate the headspace, adjust the full-length die upward.)

SEATING WITHOUT A CRIMP

- 1 Insert a sized case into the shell holder and lower the handle. Back out the seater adjustment screw. With the seater screw adjusted higher to begin with, it enables you to adjust downward until the proper seating depth is reached. (If you have the seater adjustment screw too low to start, your bullets might start off being seated too deep).
- 2 Thread the seating die into the press until you feel resistance. At that point, the crimp ring has come in contact with the mouth of the case.
- 3 Back the die out of the press one-half turn to prevent the case from being crimped — tighten the die body lock ring. (Note: if the die is threaded too far into the press, the case shoulder will collapse.) Raise the handle and return the ram to its starting position.
- 4 Insert a bullet in the case mouth - lower the handle so the cartridge and bullet enter the alignment sleeve. Upon completion of the stroke, the bullet will barely be seated in the case.
- 5 Adjust the seater adjustment screw downward in small increments, each time operating the handle until the bullet is seated to the desired length. **The bullet might stay in the floating seating stem if there is little or no engagement by the case mouth. At the completion of each stroke, inspect the cartridge for the correct overall length.**

SEATING WITH A CRIMP

To begin, refer to the procedure for SEATING WITHOUT A CRIMP. Follow the procedure throughout, however, **DO NOT TIGHTEN THE DIE BODY LOCK RING.**

- 1 Once you've reached the preferred seating depth for the bullet, back out the seater adjustment screw a few turns.
- 2 Raise the ram, with the cartridge, to the top of the stroke.
- 3 Thread the seater die body into the press until it meets resistance (**again, at that point, the mouth of the case has met resistance with the crimper.**)
- 4 Thread the seater die body into the press in small increments (one-sixteenth...one-eighth turns) each time operating the handle. At the completion of each stroke, inspect the cartridge for the proper crimp.
- 5 Once you've reached the desired crimp (with the cartridge still in the die), tighten the die body lock ring. While holding down the handle, thread the seater adjustment screw downward until it firmly contacts the bullet.
(NOTE: On presses with a cam-over action, back out the adjusting screw 1/8 to 1/4 of a turn to allow for cam-over.)
- 6 At that point, raise the handle and remove the cartridge. Check the lock ring to make sure it's still tight. Try another case with a bullet. If the desired seating depth and crimp are attained, then you can begin seating and crimping in one operation. If not, make the needed minor adjustments.
(NOTE: For uniform crimps, cases must be trimmed prior to seating, to uniform length.)

NECKING UP

The elliptical shape of the expander allows the reloader to expand the mouth of the case as well as "neck up" from one caliber to a larger caliber without the use of a tapered expander.

The expander is tapered at the top as well as the bottom to "neck up" in stages. For example, you can use Hornady's 25 caliber and 30 caliber expanders to neck up from a .223 caliber to 30 caliber.

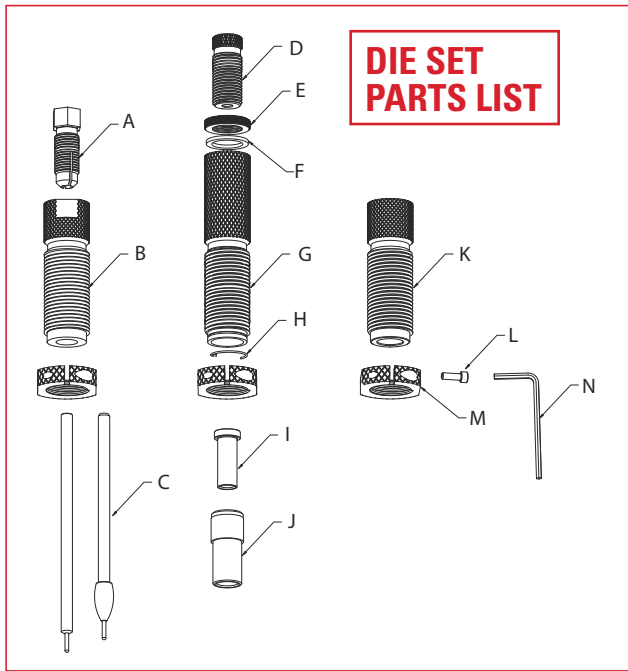
ADJUSTING THE EXPANDER DIE

(Three-die sets only)

The expander assembly is designed to put a slight "bell" or flare on the case mouth. For uniform flaring, trim all case to their proper length.

To adjust the expander die body, raise the press ram to its full height with a case in the shell holder. Thread the expander die into the press until the expander touches the case mouth. Raise the handle and screw down the die in small increments (each time inspecting the mouth) until the mouth of the case has been flared just enough to seat a bullet. Tighten the die body lock ring and set screw. Keep in mind that an excessive flare can eventually shorten case life, and may keep the case from properly entering the seating die.





Key	Description	Part No.	Key	Description	Part No.
A	Large Spindle Lock	396335	H	Retaining Ring (2) (3-Die Set only)	396430
	Small Spindle Lock	396336	I	Seating Stem	*
B	Size Die Body	*	J	Alignment Sleeve	*
C	Spindle/Decap Pin (plus Expander on Bottleneck Dies only)	*	K	Expander Die Body (3-Die Set only)	*
D	Seater Adjusting Screw	044100	L	Lock Ring Screw	390200
E	Seater Lock Nut	044800	M	Sure-Loc Lock Ring	044000
F	Washer	398067	N	Allen Wrench	390656
G	Seater Die Body	*			

*Caliber specific part numbers are assigned to these items.

PRODUCT WARRANTY

WARRANTY: Hornady product warranty extends to the original purchaser of the reloading dies. Hornady product warranty does not apply to commercial reloaders.

WARRANTY COVERAGE: Hornady reloading dies are warranted against defective materials and workmanship. Hornady NEW DIMENSION dies are guaranteed not to break or wear out from normal use. THIS WARRANTY IS VOID IF THE PRODUCT (1) has been damaged by accident or unreasonable use, neglect, improper service or other causes not arising out of defects in material or workmanship, or (2) has been altered or repairs have been made or attempted by other than authorized factory personnel, or (3) is used commercially or (4) has been altered or defaced in any way. Reloading dies will be either replaced or reconditioned (at Hornady's option) when product is returned prepaid, to: HORNADY WARRANTY REPAIR SERVICE, 3625 OLD POTASH HIGHWAY, GRAND ISLAND, NE 68803. The replacement will continue the warranty of the original product, or ninety days, whichever is longer.

ACCESSORIES

MicroJust™

The economical way to achieve optimum bullet seating depth for benchrest accuracy and consistency. Simply replace the standard seating depth adjustment stem on your New Dimension Custom Grade Dies with the MicroJust Seating stem. Allows you to precisely set bullet seating depth in .001" increments.

No. 044090



L-N-L Die and Conversion Bushings

Simply insert a Hornady conversion bushing into your RCBS® Rock Chucker or other reloading press using a 1¼-12 thread, and you're ready to start using the Lock-N-Load System. It's the easiest way to get the most out of your reloading press. These bushings let you take advantage of Hornady's Lock-N-Load technology even if you own a competitor's reloading press. The Lock-N-Load Conversion kit includes three die bushings and one conversion bushing.

- L-N-L Press Conversion Bushing No. 044095
- (2-pk.) L-N-L Die Bushings No. 044094
- (3-pk.) L-N-L Die Bushings No. 044093
- (10-pk.) L-N-L Die Bushings No. 044096
- L-N-L Conversion Kit No. 044099



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