



Technical Newsletter From  
Your Ballistic Technicians  
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## **Accuracy Loading Tip: Squaring Your Dies** by Rich Machholz

Squaring your dies - probably THE most overlooked facet of reloading!! Alignment of the dies with the shell holder is critical to accuracy yet easy to accomplish if done correctly. Once done, it need not be redone unless additional adjustment is required. Follow the die makers instructions, turning your die until it contacts the shell holder and then 1/8 to 1/4 turn past. This compresses the press linkage.

Leave pressure on the die (moderate), snug the lock ring to the press and tighten the lock ring set screw. This will preclude the possibility of die cant during setup caused by lock ring misalignment during the tightening.

Both the sizing die body and seating die body shall be done in this manner. It is not uncommon for split lock rings to draw up crooked and set screw lock rings to torque during the tightening process causing misalignment of the die body. Although your die may feel frozen in the press, rest assured it isn't. That's just the uneven drawing of the lock rings and thread compression.

To remove the die, pad the jaws of a pair of pliers and apply pressure to the lock ring, provide a light rap with the heel of your hand to the pliers, the die will loosen and can be removed by hand. Your dies can be reinstalled and will remain aligned if screwed in snugly.

## **No Perfect Bullet For All Uses** By Paul Box

The job of every bullet is to be accurate and also to penetrate and expand. Most hunting applications will involve either varmints or big game. The ideal varmint bullet is designed to expand rapidly on crows, chucks, prairie dogs, etc. as they are light framed and offer little resistance.

In big game hunting, a bullet must have a thicker jacket and harder core to enable it to penetrate to vital organs. If these bullets are used in reverse role, the varmint bullet will expand more on the surface before vital organs are reached, while the big game bullet will pencil through varmints. As a result, there simply isn't a perfect bullet for all uses.

## Proper Bullet Selection For Hunting

By Carroll Pilant

Hunting bullets should be selected with the game animal and hunting situation in mind. The bullet you would select for hunting baited bears wouldn't be the same you would choose for an antelope hunt.

Light bullets at high velocities will expand faster than the same bullet at a lower velocity. The faster the expansion, the less penetration you get, possibly not making it to vital organs. Slower, heavy bullets will give deep penetration.

For long range use (300 yards and above), a boattail is a good choice. It carries better over the long ranges and offers less wind drift than a flat base bullet. It is designed to perform at the lower velocities of longer ranges.

For closer range (under 300 yards) a flat base bullet is a good choice. They will hold together better at the higher velocity of close range, giving deeper penetration than you would get with a boattail at the same velocity.

So, for clean humane kills, choose your bullet accordingly.

## .22 Bullets For Deer Hunting??

by Kevin Thomas

Q. Which of your .22 Caliber bullets do you recommend for deer? In my state .22 Caliber centerfires are now legal for big game use, and I'd like to use my .22-250 for deer this year.

A. While it is undeniable that most .22 centerfires are capable of taking deer size game, we want to stress the fact that they are marginal even under the best of circumstances. Most .224" diameter bullets are designed for use on varmints, or are match bullets not intended to expand. If you absolutely must use a .22 centerfire, choose as heavy a bullet as your rifle will reliably stabilize. A thicker jacket, such as those designed for .22-250 or .220 Swift velocities will also help. Consequently, we would recommend something like a 55 grain spitzer or spitzer boattail, 60 grain hollow point, or 63 grain semi-pointed. Place your shots with extreme care, and don't take any questionable shots.

## SIERRA MATCHKINGS FOR HUNTING??

by Kevin Thomas

Q. I've used your superb match bullets for many years in long-range rifle competition with excellent results. I'm planning an antelope hunt later this year, where the ranges are likely to be long. Can I use these same MatchKing bullets for my hunt?

A. We don't recommend it. MatchKing bullets are designed with only one consideration; to produce the most consistently accurate bullet possible. This is done without regard to how the bullet will behave after impact, as the bullet has

accomplished its mission at that point. Bullets intended for hunting use must be designed with terminal performance in mind, since their job begins on impact. Featuring heavier jackets, different nose profiles, Power Jacket skiving, double taper jacket designs, etc., Sierra's hunting bullets are designed to give deep, controlled expansion. Use match bullets for matches, and hunting bullets for hunting.

## Full-Length Resize New Brass Before Use

By Robert Treece

When working with new, unfired brass, start out by visually inspecting every piece of brass before use. Now is the best time to use a primer pocket uniformer and a flash-hole deburrer. Hopefully they are all of the same lot number, making case weights and capacities very similar - check a handful on your scale to be certain.

This new brass has been annealed, making it softer; so that during the manufacturing process, the cases can be more easily formed into the basic shape. Cases are produced to minimum tolerances for several reasons. The cases must fit all chambers and must be easily released from manufacturing equipment for volume production. Take the time to run your new brass through your normal full-length resizing process.

Full-length resizing assures the case fits your firearm easily and will be fireformed to your chamber upon ignition while proper neck tension gives you added potential for accuracy.

[Return to the X-Ring Index](#)

[Next Issue of X-Ring](#)