



# BARNES

PRODUCT  
CATALOG



BARNES | 20  
BULLETS | 20



WELCOME TO

# BARNES

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# THE BARNES X BULLET.



**1989**  
X BULLET

**1997**  
XLC

**2003**  
TSX

**2008**  
TTSX

**2011**  
LRX

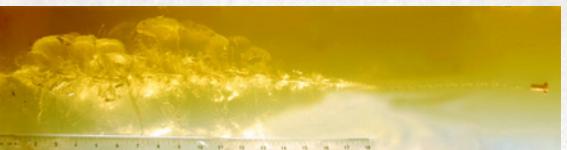
The next version, the XLC featured a dry film lubricating coating designed to decrease fouling and improve velocity and accuracy. Introduced in 2003, the TSX Bullet incorporated horizontal grooves along the circumference of the bullet, which eliminated the need for a dry lubricating film. These grooves also provided a place for copper displaced by the rifling to resettle.

The Barnes TTSX added a blue polymer tip to the proven X Bullet equation. This tip raised the ballistic coefficient for improved flight characteristics and acted as a wedge to promote full expansion and energy transfer.

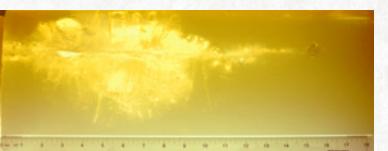
In 2011, Barnes introduced the LRX, designed for consistent terminal results at close and long range, with bullet shape and configuration optimized for each caliber. Introduced in 2017, Barnes VOR-TX LR takes all the advanced engineering of LRX to our highest level of downrange effectiveness. It delivers identical results up close to extreme distances with unmatched precision. It's the pinnacle of Barnes all-copper domination in its most accurate and lethal form yet.



**COMPETITIVE ANALYSIS  
PERFORMED WITH 180 GRAIN BULLETS  
FIRED FROM A 300 WIN MAG AT  
300-YARD IMPACT VELOCITY INTO  
BALLISTICS GELATIN.**



Barnes all-copper TSX



Leading competitor's jacketed lead-core hunting bullet

**THE BULLET IS THE LEAST  
EXPENSIVE PART OF THE HUNT.  
DON'T COMPROMISE.**

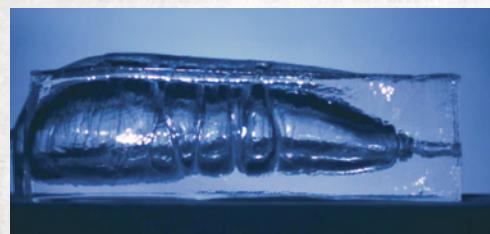
Barnes all-copper bullets expand rapidly, dump more energy and penetrate deeper than any lead-core bullet available. Why the difference in penetration? It's simple. A lead-core bullet 'mushrooms' into a solid mass, creating a lot of resistance. The Barnes all-copper bullets expand into four, five or six cutting petals that tear through tissue, bone and vital organs allowing for deeper penetration.



35 Whelen 180 Grain Tipped TSX VOR-TX,  
recovered from a hog



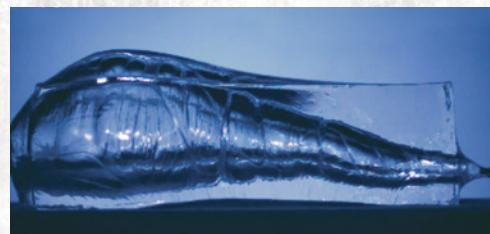
**BARNES VOR-TX LR GEL BLOCKS**



Barnes VOR-TX LR (Long Range)  
6mm Creedmoor  
95gr. Barnes LRX BT  
Impact Distance: 500 yd.  
Penetration: 20+ in.



Barnes VOR-TX LR (Long Range)  
270 Winchester  
129gr. Barnes LRX BT  
Impact Distance: 500 yd.  
Penetration: 20+ in.

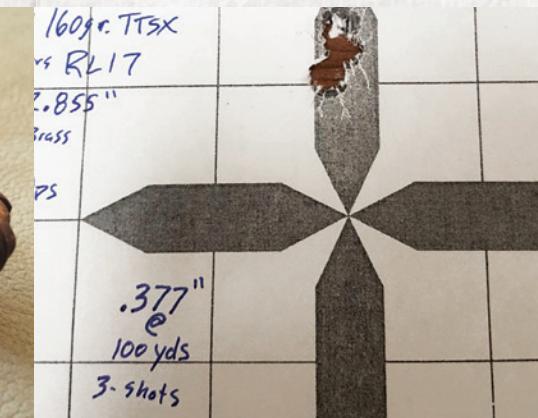


Barnes VOR-TX LR (Long Range)  
7mm Remington Magnum  
139gr. Barnes LRX BT  
Impact Distance: 500 yd.  
Penetration: 20+ in.



Barnes VOR-TX LR (Long Range)  
338 Remington Ultra Magnum  
250gr. Barnes LRX BT  
Impact Distance: 500 yd.  
Penetration: 20+ in.

**NEW VOR-TX  
EXPANDER  
SHOTSHIELDS**





# HUNTING

**LOADED WITH  
DECades OF  
ON-GAME  
EXPERIENCE.**

At Barnes, constant innovation leads to ballistic perfection. Since 1991, we've employed aerospace technical abilities in our manufacturing process. And today, we're taking accuracy and on-game effectiveness to new levels with VOR-TX LR. It's optimized to deliver stunning performance at close and extended ranges. As pioneers of all-copper hunting bullet technology, we are driven to achieve an unrivaled combination of precision and devastating terminal results. A reputation born of extensive testing and countless hunts. Proudly creating the most technologically advanced hunting bullets and ammunition on the planet.

## AMMUNITION & COMPONENTS

VOR-TX AMMUNITION

TSX / TTSX / LRX

MUZZLELOADER

HANDGUN COMPONENTS

PREDATORS & VARMINTS

ORIGINAL / SOLIDS



HUNTING AMMUNITION

# VOR-TX LR

**SURGICAL PRECISION AND UNMATCHED TERMINAL PERFORMANCE AT EVERY DISTANCE.**

## VOR-TX LR AMMUNITION

Target bullets with high ballistic coefficients can't be trusted to take down big-game animals quickly and humanely. VOR-TX LR ammunition is loaded with premium all-copper Barnes LRX bullets specially designed not only for precision at long range but unrivaled on-game effectiveness at every range. So whether your trophy presents at close or extreme distance, you can rely on devastating terminal performance from the purpose-built LRX bullet.

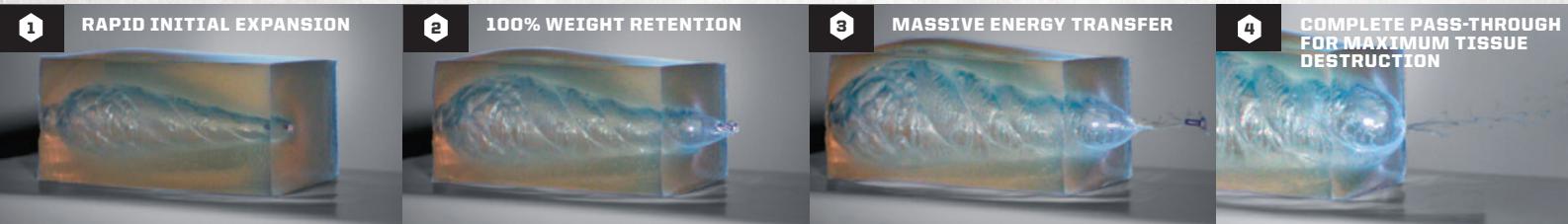
SEE FULL PRODUCT LISTING ON PAGE 32.



MORE VOR-TX LR INFO @ BARNESBULLETS.COM

## THE ETHICAL SOLUTION TO LONG-RANGE HUNTING

As hunters, we strive to be worthy of our hunting tradition. The bullet delivers your intentions to the target, but all bullets are not designed equal.



**LRX BULLETS ARE DESIGNED TO MATCH THE LATEST ADVANCEMENTS IN FIREARMS AND EXTENDED RANGE OPTICS CAPABILITIES.**

Doppler radar technology was utilized in the development process to optimize the bullet's profile for low drag and top accuracy at extreme distances. Its long-range precision previously available only to handloaders - loaded and ready for your hunt today.



- Polymer tip boosts ballistic coefficient and initiates rapid expansion
- Specially engineered scored nose cavity expands into four razor-sharp petals and a large frontal diameter for maximum energy transfer and deep penetration on game at close and extreme distances
- Accu-Groove technology for minimal fouling and superior accuracy
- Boat tail design with precision heel radius

## LONG-RANGE PERFORMANCE: IT'S ALL ABOUT THE BULLET.

The all-copper LRX (Long Range X Bullet) opens instantly on impact into four razor-sharp petals that plow a wide wound channel and deposit massive amounts of energy throughout the entire length of the cavity. High weight retention sustains bullet momentum for maximum destruction of tissue, bone and vital organs to effectively and humanely take down game at close and extreme distances.





HUNTING AMMUNITION

# VOR-TX

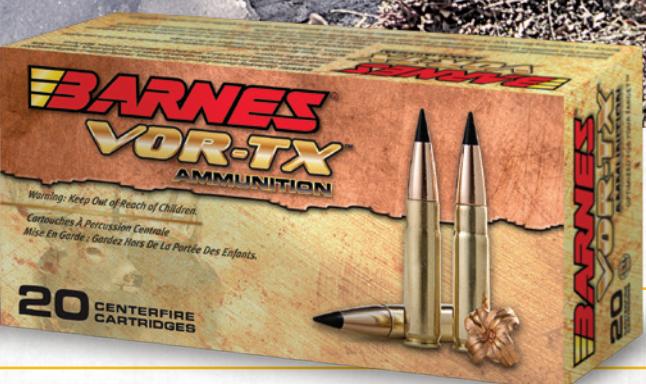
## VOR-TX 300 AAC BLACKOUT

Profile ensures flawless magazine-length loading in AR rifles. An excellent choice for whitetail, hogs and defense initiatives.

### 300 AAC BLACKOUT, 300 YARDS INTO 10% BARE BALLISTIC GELATIN:

Available in 110 GR TAC-TX FB and 120 GR TAC-TX BT in VOR-TX Ammunition and reloading components, Barnes legitimized the 300 AAC Blackout as an extremely lethal medium- and large-game hunting cartridge. Engineered exclusively for the 300 AAC Blackout, the competition doesn't hold a candle to the accuracy, terminal performance and wide range of workability the Barnes TAC-TX delivers in this cartridge.

SEE FULL PRODUCT LISTING ON PAGE 32.

BARNES VOR-TX  
110 GR TAC-TX

9" BARREL

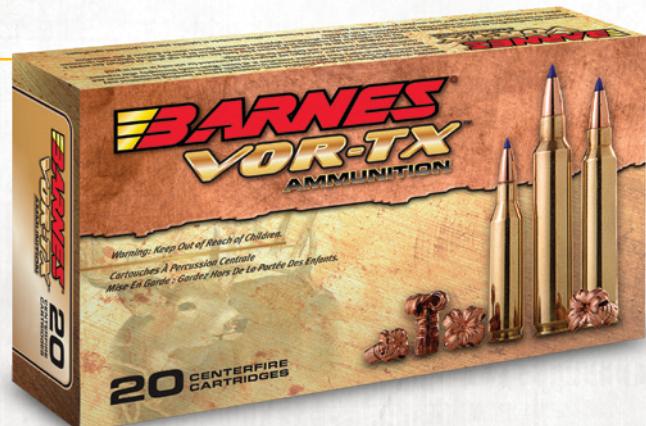
16" BARREL

## THE PRECISION OF A HANDLOAD. THE TERMINAL RESULTS ONLY BARNES CAN DELIVER.

VOR-TX Ammunition delivers handloaded precision in a factory round super-engineered to stop big game in its tracks. Expect complete penetration from our all-copper bullet technology with virtually 100% weight retention and double-diameter expansion. It's a flawless confluence of bullet integrity and predictable, bone-busting chaos that puts animals on the ground like nothing else. They're the deadliest, and most accurate hunting loads on the planet.

## VOR-TX RIFLE

The whirling, destructive power of the Barnes all-copper bullets offer double-diameter expansion, maximum weight retention and excellent accuracy. These bullets provide maximum tissue and bone destruction, pass-through penetration and devastating energy transfer. Loaded with TSX, Tipped TSX and TSX FN bullets.



### 6.5 GRENADE, 115 GR, #30829

### 450 BUSHMASTER, 250 GR, #30838

SEE FULL PRODUCT LISTING ON PAGE 32.



## HUNTING AMMUNITION

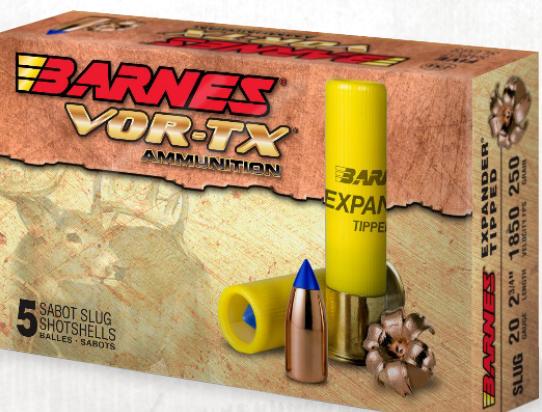
# VOR-TX

### NEW VOR-TX EXPANDER SHOTSHELL

New VOR-TX Expander Shotgun slugs deliver rifle-like performance with Barnes proven on-game results engineered in. Its polymer-tipped, all-copper body produced extreme expansion and penetration, even at extended range. With higher velocity, flatter trajectory and unmatched accuracy. Available in both 12- and 20-gauge, in 2 $\frac{3}{4}$ " and 3".

#### NEW FOR 2020

- EXPANDER TIPPED, 12 GAUGE 437 GR 2 $\frac{3}{4}$ ", #20733**
- EXPANDER TIPPED, 12 GAUGE 437 GR 3", #20737**
- EXPANDER TIPPED, 20 GAUGE 250 GR 2 $\frac{3}{4}$ ", #20735**
- EXPANDER TIPPED, 20 GAUGE 250 GR 3", #20739**



VOR-TX Safari Ammunition delivers hand-loaded precision in a factory round super-engineered to stop game in its tracks. Expect complete penetration from our all-copper bullet technology with virtually 100% weight retention and double-diameter expansion to put animals down like nothing else.

### VOR-TX SAFARI

The destructive power of TSX bullets and the virtually indestructible, straight-tracking, deep-penetrating Banded Solids.

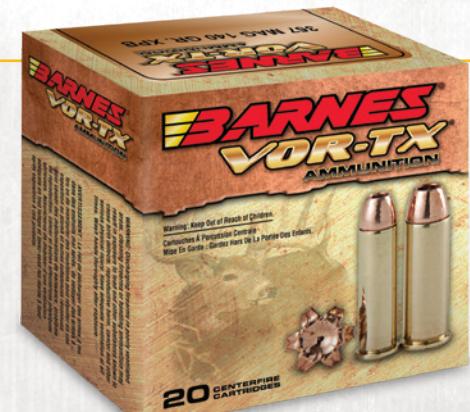
SEE FULL PRODUCT LISTING ON PAGE 33.



### VOR-TX HANDGUN

The XPB bullets deliver deep penetration and double diameter expansion for maximum weight retention and DRT performance.

SEE FULL PRODUCT LISTING ON PAGE 34.



## A REPUTATION FORGED FROM SOLID COPPER AND EPIC KNOCKDOWNS.

The TSX, TTSX and LRX bullets have proven to be the most accurate and lethal hunting bullets available – a fact countless shooters have confirmed time and time again.

### TSX

The deadly effectiveness of the original Barnes X Bullet with:

- All-copper construction
- Sleek profile and precision heel radius in FB and BT designs
- Accu-Groove technology for decreased fouling and top accuracy
- Devastating terminal performance
- Available in select Barnes VOR-TX ammunition offerings



SEE FULL PRODUCT LISTING ON PAGE 36.

### TIPPED TSX

All the features of the TSX Bullet, plus:

- Polymer tip that boosts B.C. and initiates expansion
- Re-engineered nose cavity to provide faster expansion and devastating terminal performance
- Popular calibers and weights available in Barnes VOR-TX ammunition



SEE FULL PRODUCT LISTING ON PAGE 35.

### LRX NEW FOR 2020 LRX BOAT TAIL BORE RIDER, 212 GR, #30376

All the features of the TSX and the Tipped TSX Bullets, plus:

- Designed to match the latest advancements in firearms and extended range optics capabilities
- Re-engineered nose cavity to provide a wide range of workability for full expansion and deep penetration on game at close and extended distances
- Doppler radar technology utilized in the development process to optimize the bullet's profile for low drag and top accuracy at extended distance
- Available in select Barnes VOR-TX LR Ammunition offerings



SEE FULL PRODUCT LISTING ON PAGE 34.

## OUTPERFORMS ALL OTHER MUZZLELOADER BULLETS SHOULDER TO SHOULDER.

The Muzzleloader version of the X Bullet is 100% copper with a large, hollow cavity for expansion without any fragmentation. Shoot with greater confidence and more one-shot kills.

### EXPANDER MZ

These bullets deliver deadly performance at both high and low velocities. Expand to twice their original diameter, creating six razor-sharp copper petals that slice through game. No fragmentation. These tough, deep-driving bullets typically retain 100 percent of their original weight.

SEE FULL PRODUCT LISTING ON PAGE 39.



### SPLIT-FIRE MZ

A streamlined ogive, boattail base and tack-driving accuracy for difficult long shots. Deadly at high and low velocities. Six razor-sharp copper petals create massive shock, deep penetration and double-diameter expansion.

SEE FULL PRODUCT LISTING ON PAGE 39.



### SPLIT-FIRE TMZ

The Split-Fire TMZ shares the same boattail design and 100 percent copper construction with the Split-Fire MZ but has a streamlined polymer tip for rapid expansion. Higher ballistic coefficient aids exceptional long-range performance.

SEE FULL PRODUCT LISTING ON PAGE 39.



### SPLIT-FIRE T-EZ

Split-Fire T-EZ muzzleloader bullets with EZ Load sabots load easier in guns with tight bores. Ramrod pressure required to load and seat these 50 caliber flat base bullets is greatly reduced.

SEE FULL PRODUCT LISTING ON PAGE 39.



### XPB

Featuring Barnes' patented X Bullet technology, all-copper XPB bullets offer dramatically increased performance over conventional jacketed lead-core bullets. These lead-free bullets provide superior expansion and weight retention. Energy transfer is unsurpassed for quick, clean kills, making them ideal for hunting.

SEE FULL PRODUCT LISTING ON PAGE 38.



### BUSTER

Heavy-for-caliber handgun and lever-rifle bullets for hunting bear, wild boar, moose, bison, buffalo and other large, dangerous game. Thick copper jacket and a heavy lead core, resulting in bone-crushing power with pass-through penetration.

Barnes Busters track straight without deflection and remain intact—jackets won't separate from the core. Ideal for those who carry handguns for protection against bears in Alaska and other wilderness areas.

SEE FULL PRODUCT LISTING ON PAGE 39.



### VARMIN-A-TOR

Accurate, explosive lead DETON-A-TOR core. This lead-core classic hollow point design utilizes a scored nose cavity. A thin, tapered copper jacket fragments violently on impact vaporizing any predator or varmint in its path.

SEE FULL PRODUCT LISTING ON PAGE 35.



### VARMINT GRENADE

Hollow-cavity, flat-base bullet features a copper-tin powdered metal core surrounded by a gilding metal jacket. Instant fragmentation, virtually vaporizing ground squirrels and prairie dogs, even at long range. Expends energy quickly, seldom exiting large predators, leaving valuable pelts virtually undamaged.

SEE FULL PRODUCT LISTING ON PAGE 35.



## PRIZED BY HUNTERS SINCE 1932.

Fred Barnes turned innovation and ingenuity into the bullet that launched the premium bullet revolution. The Barnes Original, a long-time favorite of professional hunters who demand impact and reliable performance.

### BARNES ORIGINAL

Featuring a thick copper jacket pressure-formed around a pure lead core, these time-tested bullets are offered for selected cartridges like the 348 Win, 38-55, 375 Win and 45-70.

Barnes Original expands to more than twice their original diameter and retain 70-90% of their original weight.

Many big game hunters continue to rely on this time-proven bullet.

SEE FULL PRODUCT LISTING ON PAGE 38.



- Pure copper tubing jacket
- Pure lead core
- Controlled expansion
- Deep penetration
- Proven performance

## VIRTUALLY INDESTRUCTABLE ON THE TOUGHEST, MOST DANGEROUS GAME.

Tracks straight without deforming or deflecting on heavy bone. The deadliest, most dependable solids you can buy.

### BARNES BANDED SOLIDS

Machined from homogeneous copper/zinc alloy, these indestructible bullets won't disintegrate or deflect on heavy bone. Multiple bands, or rings, cut into the shank relieve pressure and virtually eliminate fouling. Specifically designed to track straighter through dense muscle and bone. Weight-matched with TSX bullets of the same caliber, Banded Solids can be interchanged with TSX bullets without varying point of impact. Round nose for flawless feeding in bolt-action rifles. Flat nose available for double rifles.

SEE FULL PRODUCT LISTING ON PAGE 38.



- Free-machining brass
- Deep, dependable penetration
- Tracks straight, won't deflect on bone
- True performance with no deformation



# PERSONAL DEFENSE



**BUILT TO  
DEFEND.  
ENGINEERED TO  
PERFORM.**

The most technically advanced personal defense products on the market today. The result of thousands of rounds of testing, Barnes personal defense products provide maximum energy transfer and straight tracking for solid confidence in any scenario. With products optimized to meet stringent FBI protocol and law enforcement standards, and 100-percent copper solutions engineered to penetrate intermediate barriers with minimal deflection, Barnes personal defense products deliver consistent, threat-stopping performance you can trust.

## AMMUNITION & COMPONENTS

TAC-XPD AMMUNITION

TAC-XP HANDGUN COMPONENTS



PERSONAL DEFENSE

# TAC-XP



## BARNES M/LE TAC-XP PISTOL

PERSONAL DEFENSE COMPONENTS: Designed for law enforcement and personal defense, 100-percent copper TAC-XP pistol bullets meet the requirements of lead-free practice environments. They maintain their original weight and track straight after being fired through intermediate barriers like car doors, plywood and automobile windshield glass.

SEE FULL PRODUCT LISTING ON PAGE 41.

**PERSONAL DEFENSE OPTIMIZED.  
WE DIDN'T INVENT PERSONAL  
DEFENSE AMMUNITION.  
WE PERFECTED IT.**

With a large, deep hollow-point cavity, TAC-XPD ammunition is designed to deliver top performance when it's most critical.



## BARNES TAC-XPD DEFENSE

The optimized solution for personal and home defense. Engineered to deliver top performance in life-threatening situations. Nickel plated cases and coated, all-copper TAC-XP bullets produce smooth, reliable feeding with virtually no muzzle flash.

The all-copper construction and very large, deep hollow-point cavity expand, penetrate and perform more consistently than any personal defense product on the market.

SEE FULL PRODUCT LISTING ON PAGE 40.



2020 // BARNES MATCH / RANGE / TARGET



# MATCH RANGE TARGET

**PURSUE  
PERFECTION  
AT ITS FARTHEST  
REACHES.**

Created from first quality, factory-fresh brass, temperature-stable propellants and high-ballistic-coefficient projectiles, Barnes match, range and target ammunition is the most consistent commercially manufactured ammunition on the market today. Barnes is a proud supplier of precision ammunition to America's Elite Military marksmen. Precision rifle, 3-gun and high power competitors can expect that same unwavering consistency in their chosen pursuit.

## AMMUNITION & COMPONENTS

PRECISION MATCH  
RIFLE AMMUNITION

RANGE AR RIFLE  
AMMUNITION

MPG [MULTI-PURPOSE GREEN]  
COMPONENTS

MATCH BURNERS  
COMPONENTS

## SEND IT WITH CONFIDENCE. EVERY TIME.

For shooters who demand uncompromising performance and exceptionally accurate, long-range results.

### PRECISION MATCH AMMUNITION

Engineered for precision at extreme distances. Barnes' exacting manufacturing and quality standards result in low standard deviations and extreme variations. CONSISTENCY DELIVERED.

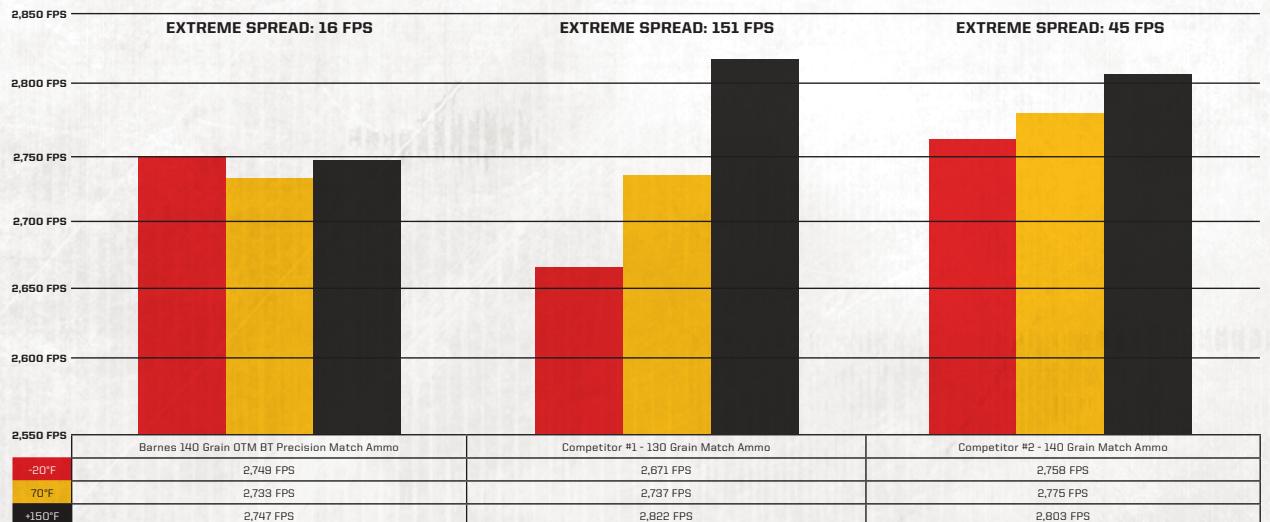
- High B.C., Match grade, OTM BT projectile for competitive and target shooting at extreme distances
- Temperature stable propellant for low extreme spreads and standard deviations
- First quality, factory-fresh brass
- Scan the QR Code located on each box to view Doppler-radar generated drop tables specific to each load
- Barnes proudly supplies precision ammunition to America's Military Elite



### 6.5 GRENDEL, 120 GR, #30831

SEE FULL PRODUCT LISTING ON PAGE 40.

## 260 REMINGTON MATCH AMMUNITION TEMPERATURE STABILITY COMPETITIVE ANALYSIS



MORE PRECISION MATCH INFO @ BARNESBULLETS.COM

## ALWAYS FINDS ITS MARK, BUT RARELY LEAVES ONE.

### RANGE AR RIFLE AMMUNITION

Delivers higher velocity, flatter trajectory and ultimate accuracy at an affordable price. First quality factory-fresh brass is paired with a lead-free, copper-jacketed, zinc core OTFB projectile. Scan the QR code located on the back of each box to view drop tables for a variety of barrel lengths specific to each load.

Buy, Try, and Never Go Back.

SEE FULL PRODUCT LISTING ON PAGE 42.



### 1. OPEN TIP (OT)

### 2. LIGHT-FOR-CALIBER, ZINC CORE OTFB PROJECTILE

### 3. PROPELLANT OPTIMIZED FOR AR PLATFORMS OF ANY BARREL LENGTH

### 4. CLEAN SHOOTING, NON-CORROSIVE PRIMING

## PERFECTLY SUITED FOR MULTIPLE APPLICATIONS.



### MPG (MULTI-PURPOSE GREEN) COMPONENTS

MPG technology was developed for military and law enforcement applications. This bullet design features a highly frangible, powdered-metal copper-tin core inside a gilding metal jacket. Unlike frangible bullets lacking a protective jacket, MPG bullets remain intact under the rigors of handling, feeding and firing in high capacity magazines. This eliminates the primary cause of jammed actions and plugged barrels often experienced when firing frangible ammunition in modern AR-style rifles.

SEE FULL PRODUCT LISTING ON PAGE 42.

### MINIMIZING RUN-OUT

Any variation in the centerline of the rifle bore, the case, and the bullet diminishes precision. Taking the time to ensure your sizing die is properly set up to produce cases with concentric necks will be worthwhile. A concentricity gauge will confirm that your finished ammunition is within a thousandth of an inch of perfect concentricity.

MORE RANGE AR AND MPG INFO @ BARNESBULLETS.COM



MATCH / RANGE / TARGET

## MATCH BURNERS

### DESIGNED FOR THE COMPETITIVE SHOOTER.

These premium bullets deliver accurate, aggressive results.

#### MATCH BURNERS

As Precision Rifle, 3-Gun and High Power competition heats up, Barnes responds with competitively priced lead core match-grade bullets. Competitive shooters looking for that "better mouse trap" owe it to themselves to give Barnes Match Burners a shot. High B.C., Match grade, OTM BT projectile for competitive and target shooting at extreme distances.

Available in various calibers and optimized weights and styles to handloaders and loaded in Barnes Precision Match ammunition.

**6.5MM, 145 GR, #30100**

**6.5MM, 145 GR, #30102**

SEE FULL PRODUCT LISTING ON PAGE 42.



BULK PACKS

MORE MATCH BURNER INFO @ BARNESBULLETS.COM

MATCH BURNERS MATCH / RANGE / TARGET



#### HOW CLEAN IS YOUR BARREL, REALLY?

When cleaning a rifle, angle the muzzle downward and use a bore guide. This ensures solvents, crud, and grime won't drip or run through the action, gumming up the trigger and possibly damaging the bedding. One-piece, coated cleaning rods are recommended.

Mount the firearm in a vise. Use a rag for padding and a container under the muzzle to catch the solvents and patches.

Select the proper cleaning rod based on the caliber.

- Use the proper jag and a tight-fitting patch soaked with Barnes CR-10 Bore Cleaner to remove the powder fouling.
  - › Use 2-4 patches and push each patch completely through the bore with one long stroke.
- Install the proper size cleaning brush, soak with CR-10 and stroke the bore 10-20 times.
  - › Push brush completely through the bore prior to reversing direction.
  - › Add CR-10 to brush while at muzzle end of barrel half way through the process.
  - › Clean the brush after the process is complete with a blast of non-chlorinated brake cleaner or equivalent.
  - › Use proper size jag and Barnes CR-10 soaked patches until no discoloration is left on the patches.
- Examine muzzle and throat area for any signs of copper fouling.
  - › If copper fouling is still visible, repeat above process.

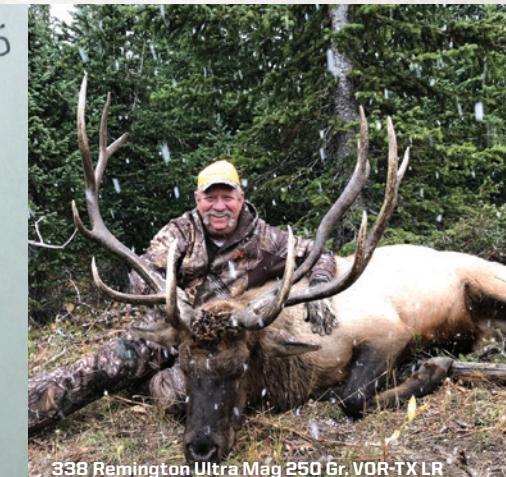


NOTE: The first two patches through the barrel after brushing should be pushed completely through the barrel in one long stroke. The patches will be blue and dirty from the loose copper residue from brushing. The remaining patches should be short stroked through the barrel a few inches at a time until there is minimal blue coloration on the patch.

- Push 2-4 patches soaked with brake cleaner through the barrel with one long stroke for each patch.
- Clean inside chamber with a dry patch.
- Lube the bolt lugs with bolt grease and clean out the lug recesses. Also, apply a small amount of grease to the bolt handle & cocking piece camming surfaces on the bolt.
- Coat the bore with a light coat of oil then run one dry patch through the bore.



**BARNES ACCURACY**



**VOR-TX LR CENTERFIRE RIFLE CARTRIDGES**

ORDER NUMBER	INDEX NUMBER	BULLET STYLE	WEIGHT (GR.)	CARTRIDGE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE	UPC CASE 716876
30232	LRGCRDM1	LRX BT	95	6mm Creedmoor	20	65129 0	10	05129 8
28986	LR65CR01	LRX BT	127	6.5 Creedmoor	20	16512 4	10	06512 7
31198	LR270W01	LRX BT	129	270 Win	20	27012 5	10	07012 8
28981	LR7MM01	LRX BT	139	7mm Remington Magnum	20	17145 3	10	07145 6
28985	LR7RUM01	LRX BT	145	7mm Remington Ultra Magnum	20	17146 0	10	07146 3
30748	LR30061	LRX BT	175	30-06 Sprg	20	30617 6	10	30607 7
29013	LR300W01	LRX BT	190	300 Win Magnum	20	13190 7	10	03190 0
29011	LR300R01	LRX BT	190	300 Remington Ultra Mag	20	13019 1	10	03019 4
29061	LR338R01	LRX BT	250	338 Remington Ultra Magnum	20	13383 3	10	03383 6
29067	LR375R01	LRX BT	270	375 Remington Ultra Magnum	20	13752 7	10	03752 0

**VOR-TX CENTERFIRE RIFLE CARTRIDGES**

ORDER NUMBER	INDEX NUMBER	BULLET STYLE	WEIGHT (GR.)	CARTRIDGE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE	UPC CASE 716876
22008	BB2225XFB1	TSX FB	50	22-250 Remington	20	02245 8	10	12245 5
21520	BB223R2	TSX FB	55	223 Remington	20	02235 9	10	12235 6
31190*	BB552X1	TSX BT	62	5.56 x 45mm	20	15093 9	10	15093 6
31191*	BB556X2	TSX BT	70	5.56 x 45mm	20	15092 2	10	15092 9
21522	BB243W1	TTSX BT	80	243 Win	20	02438 4	10	12438 1
21557	BB25062	TTSX BT	100	25-06 Remington	20	12510 4	10	02510 7
22010	BB260XTBT1	TTSX BT	120	260 Remington	20	02601 2	10	12601 9
30829	BB65GR1	TTSX BT	115	6.5 Grendel	20	65120 7	10	05120 5
30815	BB65CRD1	TTSX BT	120	6.5 Creedmoor	20	02246 5	10	12246 2
21524	BB270W1	TTSX BT	130	270 Win	20	02703 3	10	12703 0
21559	BB270WSM3	TSX BT	140	270 WSM	20	12705 4	10	02705 7
21561	BB7MM082	TTSX BT	120	7mm-08 Remington	20	12843 3	10	02843 6
21526	BB7MM1	TTSX BT	140	7mm Remington Magnum	20	02844 3	10	12844 0
21563	BB7MM3	TTSX BT	150	7mm Remington Magnum	20	12845 7	10	02845 0
21529	BB7MM2	TSX BT	160	7mm Remington Magnum	20	02846 7	10	12846 4
21548	BB300AAC1	TAC-TX FB	110	300 AAC Blackout	20	13011 5	10	03011 8
30827	BB300AAC2	TAC-TX BT	120	300 AAC Blackout	20	30120 1	10	30120 8
21535	BB30301	TSX FN	150	30-30 Win	20	03030 9	10	13030 6

TSX = TSX Bullet | FB = Flat Base | TTSX = Tipped TSX Bullet | BT = Boat Tail | FN = Flat Nose

\* Special Barrel Twist Requirements: 31190 requires 1:9" twist or faster; 31191 requires 1:8" twist or faster.

**VOR-TX CENTERFIRE RIFLE CARTRIDGES (CONT'D)**

ORDER NUMBER	INDEX NUMBER	BULLET STYLE	WEIGHT (GR.)	CARTRIDGE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE	UPC CASE 716876
21531	BB30061	TTSX BT	150	30-06 SPRG	20	03065 1	10	13065 8
21565	BB30062	TTSX BT	168	30-06 SPRG	20	13067 2	10	03067 5
21533	BB30063	TTSX BT	180	30-06 SPRG	20	03068 2	10	13068 9
30816	BB308W3	TTSX BT	130	308 Win	20	15109 7	10	15109 4
21540	BB308W1	TTSX BT	150	308 Win	20	03085 9	10	13085 6
21541*	BB308W2	TTSX BT	168	308 Win	20	03086 6	10	13086 3
21569	BB300WM1	TTSX BT	150	300 Win Mag	20	13005 4	10	03005 7
21537	BB300WM2	TTSX BT	165	300 Win Mag	20	03006 4	10	13006 1
21538	BB300WM3	TTSX BT	180	300 Win Mag	20	03008 8	10	13008 5
21567	BB300WSM1	TTSX BT	150	300 WSM	20	13015 3	10	03015 6
21536	BB300WSM2	TTSX BT	165	300 WSM	20	03016 3	10	13016 0
21571	BB300RUM1	TTSX BT	165	300 Remington Ultra Magnum	20	13026 9	10	03026 2
21539	BB300UM3	TTSX BT	180	300 Remington Ultra Magnum	20	03028 6	10	13028 3
22013	BB300XTBT1	TTSX BT	180	300 Wby Magnum	20	05001 7	10	15001 4
21581	BB35W180	TTSX FB	180	35 Whelen	20	03580 9	10	13580 6
30729	BB35W200	TTSX FB	200	35 Whelen	20	35200 5	10	25200 8
30838	BB450B1	TTSX	250	450 Bushmaster	20	45025 1	10	05025 3
21575	BB338WM1	TTSX BT	210	338 Win Mag	20	13381 9	10	03381 2
21542	BB338WM2	TTSX BT	225	338 Win Mag	20	03382 9	10	13382 6
30727	BB338LAP1	LRX BT	280	338 Lapua Mag	20	38280 4	10	38280 1
21579	BB457063	TSX FN	300	45-70 Govt	20	14573 7	10	04573 0

**VOR-TX SAFARI CENTERFIRE RIFLE CARTRIDGES**

ORDER NUMBER	INDEX NUMBER	BULLET STYLE	WEIGHT (GR.)	CARTRIDGE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE	UPC CASE 716876
22014	BB375HH1	TSX FB	300	375 H&H Mag	20	13001 6	10	03001 9
22017	BB416REM1	TSX FB	400	416 Remington Magnum	20	14164 7	10	04164 0
22018	BB416REM2	BND SLD RN	400	416 Remington Magnum	20	14168 5	10	04168 8
22034	BB416RIG1	TSX FB	400	416 Rigby	50	14174 6	10	04174 9
22035	BB416RIG2	BND SLD RN	400	416 Rigby	20	14178 4	10	04178 7
22022	BB458WIN1	TSX FB	450	458 Win Mag	20	14562 1	10	04562 4
22027	BB458LOTT1	TSX FB	500	458 Lott	20	14574 4	10	04574 7
22030	BB470NE1	TSX FB	500	470 Nitro Express	20	14704 5	10	04704 8
22031	BB470NE2	BND SLD FN	500	470 Nitro Express	20	14708 3	10	04708 6
22032	BB500NE1	TSX FB	570	500 Nitro Express 3"	20	15015 1	10	05015 4
22033	BB500NE2	BND SLD FN	570	500 Nitro Express 3"	20	15017 5	10	05017 8

TSX = TSX Bullet | FB = Flat Base | TTSX = Tipped TSX Bullet | BT = Boat Tail | BND SLD = Banded Solids | RN = Round Nose | FN = Flat Nose | LRX = Long Range X Bullet

\* Special Barrel Twist Requirements: 21541 requires 1:11" twist or faster.

**VOR-TX HANDGUN HUNTING**

ORDER NUMBER	INDEX NUMBER	BULLET STYLE	WEIGHT (GR.)	CARTRIDGE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE	UPC CASE 716876
21543	BB357M2	XPB	140	357 Magnum	20	15352 7	10	05352 0
31180	BB10MMA1	XPB	155	10mm Auto	20	10155 9	10	10155 6
22037	BB41MAG1	XPB	180	41 Remington Magnum	20	15410 4	10	05410 7
21545*	BB44MAG4	XPB	225	44 Remington Magnum	20	15444 9	10	05444 2
21547	BB45CLT3	XPB	200	45 Colt	20	15453 1	10	05453 4
22024	BB454CAS1	XPB	250	454 Casull	20	15454 8	10	05454 1

**VOR-TX EXPANDER SHOTSHELL**

ORDER NUMBER	INDEX NUMBER	GAUGE	SHELL LENGTH	VELOCITY	WEIGHT (GR.)	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE	UPC CASE 716876
20733	XPDR12	12	2 3/4"	1450	437	5	15111 0	20	03712 4
20737	XPDR12M	12	3"	1550	437	5	15087 8	20	13712 1
20735	XPDR20	20	2 3/4"	1800	250	5	15087 8	20	05020 8
20739	XPDR20M	20	3"	1850	250	5	15087 8	20	15020 5

**LRX (LONG-RANGE X)**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30881	22 Cal	0.224"	77	LRX BT	50	22477 7	10
30862	6mm	0.243"	95	LRX BT	50	24395 2	10
30228*	6.5mm	0.264"	127	LRX BT	50	26403 2	10
30262	270 Cal	0.277"	129	LRX BT	50	27740 7	10
30295	7mm	0.284"	139	LRX BT	50	12841 9	10
30282	7mm	0.284"	145	LRX BT	50	28404 7	10
30284*	7mm	0.284"	168	LRX BT	50	28407 8	10
30318*	30 Cal	0.308"	175	LRX BT	50	30807 1	10
30377*	30 Cal	0.308"	190	LRX BT	50	30819 4	10
30374*	30 Cal	0.308"	200	LRX BT	50	30880 4	10
30376*	30 Cal	0.308"	212	LRX BT Bore Rider	50	30212 3	10
31150	338 Cal	0.338"	250	LRX BT	50	23382 3	10
30434	338 Lapua Mag	0.338"	265	LRX BT	50	33882 5	10
30432	338 Lapua Mag	0.338"	280	LRX BT	50	33881 9	10
30483	375 Cal	0.375"	270	LRX BT	50	23752 4	10

LRX = Long Range X bullet | BT = Boat Tail

\* Special Barrel Twist Requirements: **21545** requires 1:20" twist or faster, **30228, 30284 & 30376** requires 1:8" twist or faster, **30318** requires 1:11" twist or faster, **30374 & 30377** requires 1:10" twist or faster.

NEW

**VARMINATOR**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30092	20 Cal	0.204"	32	Varminator HP FB	100	20432 8	10
30168	22 Cal	0.224"	40	Varminator HP FB	100	22429 6	10
30178	22 Cal	0.224"	50	Varminator HP FB	100	22442 5	10
30207	6mm	0.243"	58	Varminator HP FB	100	24329 7	10
30210	6mm	0.243"	72	Varminator HP FB	100	24339 6	10

**VARMINT GRENADE**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30090	20 Cal	0.204"	26	Varmint Grenade FB	100	20426 7	10
30094	20 Cal	0.204"	26	Varmint Grenade FB	250	20456 4	10
30170	22 Hornet	0.224"	30	Varmint Grenade FB	100	22430 2	10
30184	22 Hornet	0.224"	30	Varmint Grenade FB	250	22446 3	10
30171	22 Cal	0.224"	36	Varmint Grenade FB	100	22436 4	10
30189	22 Cal	0.224"	36	Varmint Grenade FB	250	22456 2	10
30198*	223 Cal	0.224"	50	Varmint Grenade FB	100	22486 9	10
30201*	223 Cal	0.224"	50	Varmint Grenade FB	250	22496 8	10
30214*	6mm	0.243"	62	Varmint Grenade FB	100	24372 3	10
30217*	6mm	0.243"	62	Varmint Grenade FB	250	24392 1	10

**TIPPED TSX BULLETS**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30185*	22 Cal	0.224"	50	TTSX FB	50	22452 4	10
30187*	22 Cal	0.224"	55	TTSX BT	50	22453 1	10
30188*	22 Cal	0.224"	62	TTSX BT	50	22454 8	10
30208	6mm	0.243"	80	TTSX BT	50	24338 9	10
30218	25 Cal	0.257"	80	TTSX BT	50	25731 7	10
30220	25 Cal	0.257"	100	TTSX BT	50	25734 8	10
30240	6.5mm	0.264"	100	TTSX BT	50	26428 5	10
30242	6.5mm	0.264"	120	TTSX BT	50	26430 8	10
30271	270 Cal	0.277"	95	TTSX BT	50	27751 3	10
30274	270 Cal	0.277"	110	TTSX BT	50	27772 8	10
30276	270 Cal	0.277"	130	TTSX BT	50	27775 9	10
30296	7mm	0.284"	110	TTSX FB	50	28470 2	10
30298	7mm	0.284"	120	TTSX BT	50	28472 6	10
30300	7mm	0.284"	140	TTSX BT	50	28474 0	10
30303	7mm	0.284"	150	TTSX BT	50	28476 4	10
30362	30 Cal	0.308"	110	TTSX FB	50	30871 2	10
30364	30 Cal	0.308"	130	TTSX BT	50	30873 6	10
30366	30 Cal	0.308"	150	TTSX BT	50	30875 0	10
30368	30 Cal	0.308"	165	TTSX BT	50	30877 4	10
30370	30 Cal	0.308"	168	TTSX BT	50	30878 1	10

\* Special Barrel Twist Requirements: **30188, 30201, 30214 & 30217** requires 1:10" twist or faster, **30187** requires 1:8" twist or faster, **30185** requires 1:12" twist or faster.

**TIPPED TSX BULLETS (CONT'D)**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30372*	30 Cal	0.308"	180	TTSX BT	50	30879 8	10
30400	8mm	0.323"	160	TTSX BT	50	32362 3	10
30424	338 Cal	0.338"	160	TTSX FB	50	33873 3	10
30426	338 Cal	0.338"	185	TTSX BT	50	33874 0	10
30428	338 Cal	0.338"	210	TTSX BT	50	33876 4	10
30430	338 Cal	0.338"	225	TTSX BT	50	33879 5	10
30459	35 Cal	0.358"	180	TTSX FB	50	35830 4	5
30461	35 Cal	0.358"	200	TTSX BT	50	35832 8	5
30475	9.3mm	0.366"	250	TTSX BT	50	36674 3	5
30484	375 Cal	0.375"	250	TTSX BT	50	37542 4	5
30519	416 Cal	0.416"	350	TTSX BT	50	41623 3	5
30642	458 SOCOM	0.458"	300	TTSX BT	50	45872 1	10

**TSX BULLETS**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30176	22 Cal	0.224"	45	TSX FB	100	22441 8	10
30174	22 Cal	0.224"	50	TSX FB	100	22440 1	10
30180*	22 Cal	0.224"	53	TSX FB	100	22443 2	10
30182*	22 Cal	0.224"	55	TSX FB	100	22444 9	10
30190*	22 Cal	0.224"	62	TSX BT	100	22460 9	10
30193*	22 Cal	0.224"	70	TSX BT	100	22470 8	10
30204*	22 Valkyrie	0.224"	78	TSX BT	50	22478 4	10
30212	8mm	0.243"	85	TSX BT	100	24341 9	10
30222	25 Cal	0.257"	100	TSX BT	50	25742 3	10
30224*	25 Cal	0.257"	115	TSX FB	50	25743 0	10
30244	6.5mm	0.264"	120	TSX BT	50	26441 4	10
30246	6.5mm	0.264"	130	TSX FB	50	26442 1	10
31140	6.5mm	0.264"	130	TSX BT	50	26443 8	10
30254	270 Cal	0.277"	85	TSX FB	50	27732 2	10
30260	270 Cal	0.277"	110	TSX BT	50	27738 4	10
30264	270 Cal	0.277"	130	TSX BT	50	27742 1	10
30266	270 Cal	0.277"	140	TSX BT	50	27744 5	10
30269*	270 Cal	0.277"	150	TSX FB	50	27746 9	10
30287	7mm	0.284"	120	TSX BT	50	28442 9	10
30289	7mm	0.284"	140	TSX BT	50	28444 3	10
30293	7mm	0.284"	150	TSX BT	50	28447 4	10
30291	7mm	0.284"	160	TSX FB	50	28446 7	10
30294*	7mm	0.284"	175	TSX FB	50	28448 1	5
30334	30-30 Win	0.308"	150	TSX FN FB	50	30820 0	10
30341	30 Cal	0.308"	110	TSX FB	50	30835 4	10

FB = Flat Base | BT = Boat Tail | FN = Flat Nose

\* Special Barrel Twist Requirements: 30372 requires 1:11" twist or faster, 30180 &amp; 30182 requires 1:12" twist or faster, 30204 requires 1:8" or faster, 30193 requires 1:8" twist or faster, 30190, 30224 &amp; 30294 requires 1:9" twist or faster, 30269 requires 1:9.5" twist or faster.

**TSX BULLETS (CONT'D)**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30345	30 Cal	0.308"	130	TSX BT	50	30838 5	10
30347	30 Cal	0.308"	150	TSX BT	50	30841 5	10
30349	30 Cal	0.308"	165	TSX BT	50	30843 9	10
30351	30 Cal	0.308"	168	TSX BT	50	30844 6	10
30353	30 Cal	0.308"	180	TSX BT	50	30846 0	10
30356*	30 Cal	0.308"	200	TSX FB	50	30848 4	10
30391	7.62 X 39	0.310"	123	TSX BT	50	31012 8	10
30393	303 Cal / 7.65mm	0.311"	150	TSX FB	50	31115 6	10
30396	8mm	0.323"	180	TSX BT	50	32306 7	10
30398	8mm	0.323"	200	TSX BT	50	32320 3	10
30408	338 Cal	0.338"	185	TSX BT	50	33843 6	10
30410	338 Cal	0.338"	210	TSX BT	50	33845 0	10
30412	338 Cal	0.338"	225	TSX FB	50	33846 7	10
30415	338 Cal	0.338"	250	TSX FB	50	33848 1	10
30417	338 Lapua Mag	0.338"	285	TSX BT	50	33850 4	10
30455	35 Cal	0.358"	200	TSX FB	50	35820 5	5
30457	35 Cal	0.358"	225	TSX FB	50	35824 3	5
30469	9.3mm	0.366"	250	TSX FB	50	36625 5	10
30473	9.3mm	0.366"	286	TSX FB	50	36628 6	10
30486	375 Cal	0.375	235	TSX FB	50	37552 3	10
30489	375 Cal	0.375	270	TSX FB	50	37556 1	10
30491	375 Cal	0.375	300	TSX FB	50	37558 5	10
30494	375 Cal	0.375	350	TSX FB	50	37560 8	10
30514	450-400 Cal	0.410	400	TSX FB	50	41085 9	10
30516	405 Win	0.411	300	TSX FB	50	41130 6	10
30527	416 Cal	0.416	300	TSX FB	50	41683 7	10
30529	416 Cal	0.416	350	TSX FB	50	41686 8	5
30532	416 Cal	0.416	400	TSX FB	50	41689 9	5
30537	404 Jeffery	0.422	400	TSX FB	50	42340 8	10
30628	450 Bushmaster	0.451	275	TSX FB	20	45027 5	10
30615	458 Cal	0.458	300	TSX FB	50	45814 1	10
30617	458 Cal	0.458	350	TSX FB	50	45816 5	10
30619	458 Cal	0.458	450	TSX FB	50	45819 6	5
30622	458 Cal	0.458	500	TSX FB	50	45821 9	5
30629	45-70 GOVT	0.458	250	TSX FB	50	45841 7	10
30630	45-70 GOVT	0.458	300	TSX FB	50	45843 1	10
30647	470 Nitro Exp	0.474	500	TSX FB	50	47452 3	10
30688	505 Gibbs	0.505	525	TSX FB	50	50553 1	10
30692	500 Nitro Exp 3"	0.509	570	TSX FB	50	50958 4	10
30700	50 BMG	0.510	647	TSX FB	50	51062 7	10
30712	577 Nitro Exp	0.583	750	TSX FB	50	58472 7	10

FB = Flat Base | BT = Boat Tail | FN = Flat Nose

\* Special Barrel Twist Requirements: 30356 requires 1:10" twist or faster.

**XPB PISTOL BULLETS**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30453	357 Mag	0.357"	140	XPB	20	35714 7	10
30512	41 Remington Mag	0.410"	180	XPB	20	41018 7	10
30541	44 Remington Mag	0.429"	200	XPB	20	42920 2	10
30543	44 Remington Mag	0.429"	225	XPB	20	42922 6	10
30556	45 Colt	0.451"	200	XPB	20	45116 6	10
30558	45 Colt	0.451"	225	XPB	20	45120 3	10
30562	454 Casull	0.451"	200	XPB	20	45115 9	10
30554	460 S&W Mag	0.451"	250	XPB	20	45123 4	5
30548	460 S&W Mag	0.451"	275	XPB	20	45105 0	10
30659	480 Ruger	0.475"	275	XPB	20	48010 4	10
30663	500 S&W Mag	0.500"	275	XPB	20	50025 3	10
30665	500 S&W Mag	0.500"	325	XPB	20	50026 0	5
30667	500 S&W Mag	0.500"	375	XPB	20	50028 4	5

**BANDED SOLIDS**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30466	9.3mm	0.366"	250	BND SLD RN	50	36611 8	10
30467	9.3mm	0.366"	286	BND SLD RN	50	36612 5	10
30520	416 Cal	0.416"	350	BND SLD RN	50	41628 8	10
30526	416 Cal	0.416"	400	BND SLD RN	50	41660 8	10
30536	404 Jeffery	0.422"	400	BND SLD RN	50	42330 9	10
30649	470 Nitro Exp	0.474"	500	BND SLD FN	20	47455 4	10
30685	505 Gibbs	0.504"	525	BND SLD RN	20	50505 0	10
30690	500 Nitro Exp 3"	0.509"	570	BND SLD FN	20	50950 8	10
30694	500 Jeffery	0.510"	535	BND SLD RN	20	51003 0	10
30703	50 BMG	0.510"	750	BND SLD Bore Rider	20	51075 7	10
30707	50 BMG	0.510"	800	BND SLD Bore Rider	20	51080 1	10
30713	577 Nitro Exp	0.583"	750	BND SLD FN	20	58525 0	10
30714	600 Nitro Exp	0.618"	900	BND SLD FN	20	62025 8	10

**ORIGINALS**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30360	30-30 Win	0.308"	190	Original FN FB	50	30301 4	10
30437	348 Win	0.348"	220	Original FN FB	50	34805 3	10
30438	348 Win	0.348"	250	Original FN FB	50	34810 7	10
30496	375 Win	0.375"	255	Original FN FB	50	37520 2	10
30497	38-55 Win	0.375"	255	Original FN FB	50	38551 5	10
30498	38-55 Win	0.377"	255	Original FN FB	50	38552 2	10

FN = Flat Nose | FB = Flat Base | BT = Boat Tail | BND SLD = Banded Solids | RN = Round Nose | XPB = X Pistol Bullet

**ORIGINALS (CONT'D)**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30612	45-70 GOVT	0.458"	300	Original FN FB	50	45702 1	10
30613	45-70 GOVT	0.458"	400	Original Semi-Spitzer FB	50	45703 8	10
30614	45-70 GOVT	0.458"	400	Original FN FB	50	45704 5	10
30682	50-110 Win	0.510"	300	Original FN FB	20	50111 3	10
30683	50-110 Win	0.510"	450	Original FN FB	20	50112 0	10

**BUSTERS**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30545	44 Remington MAG	0.429"	300	Buster FN FB	50	42982 0	10
30572	454 Casull	0.451"	325	Buster FN FB	50	45135 7	10
30644	45-70 GOVT	0.458"	400	Buster FN FB	50	45884 4	10
30672	500 S&W Mag	0.500"	400	Buster FN FB	50	50040 6	10

**MUZZLELOADER BULLETS**

ORDER NUMBER	CALIBER	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET STYLE	BULLETS PER BOX	UPC BOX 716876	BOXES PER CASE
30506	45 Cal	0.400"	195	Expander MZ FB	15	40016 4	10
30509	45 Cal	0.400"	195	Expander MZ FB	24	40052 2	10
30560	50 Cal	0.451"	245	Spit-Fire BT	15	45121 0	10
30574	50 Cal	0.451"	245	Spit-Fire BT	24	45142 5	10
30564	50 Cal	0.451"	250	Expander MZ FB	15	45126 5	10
30577	50 Cal	0.451"	250	Expander MZ FB	24	45152 4	10
30589	50 Cal	0.451"	250	TMZ BT	15	45172 2	10
30598	50 Cal	0.451"	250	TMZ BT	24	45180 7	10
30587	50 Cal	0.451"	250	T-EZ FB	15	45171 5	10
30601	50 Cal	0.451"	250	T-EZ FB	24	45182 1	10
30567	50 Cal	0.451"	285	Spit-Fire BT	15	45128 9	10
30579	50 Cal	0.451"	285	Spit-Fire BT	24	45154 8	10
30594	50 Cal	0.451"	290	TMZ BT	15	45175 3	10
30604	50 Cal	0.451"	290	TMZ BT	24	45190 6	10
30592	50 Cal	0.451"	290	T-EZ FB	15	45174 6	10
30607	50 Cal	0.451"	290	T-EZ FB	24	45192 0	10
30569	50 Cal	0.451"	300	Expander MZ FB	15	45131 9	10
30583	50 Cal	0.451"	300	Expander MZ FB	24	45162 3	10
30674	54 Cal	0.500"	275	Expander MZ FB	15	50041 3	10
30679	54 Cal	0.500"	275	Expander MZ FB	24	50052 9	10
30676	54 Cal	0.500"	325	Expander MZ FB	15	50045 1	10
30680	54 Cal	0.500"	325	Expander MZ FB	24	50054 3	10

FN = Flat Nose | FB = Flat Base

**TAC-XPD DEFENSE AMMUNITION**

ORDER NUMBER	INDEX NUMBER	BULLET STYLE	WEIGHT (GR.)	CARTRIDGE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE	UPC CASE 716876
21552	BPD380A1	TAC-XP	80	380 Auto	20	138081	10	238088
21551	BPD9MM1	TAC-XP	115	9mm Luger +P	20	135110	10	235117
21550	BPD357M2	TAC-XP	125	357 Magnum	20	135721	10	235728
21554	BPD40SW1	TAC-XP	140	40 S&W	20	140015	10	240012
21555	BPD45AP1	TAC-XP	185	45 Auto +P	20	145010	10	245017

**PRECISION MATCH AMMUNITION**

ORDER NUMBER	INDEX NUMBER	BULLET STYLE	WEIGHT (GR.)	CARTRIDGE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE	UPC CASE 716876
30814	BB6CRDM1	OTM BT	112	6mm Creedmoor	20	651108	10	051106
30846*	BB556M1	OTM BT	69	5.56 x 45mm	20	150892	10	050895
30848*	BB556M2	OTM BT	85	5.56 x 45mm	20	151134	10	151131
30831	BB65GR2	OTM BT	120	6.5 Grendel	20	651214	10	051212
30742	BB260RM1	OTM BT	140	260 Remington	20	022489	10	122486
30166	BB65CRDM1	OTM BT	140	6.5 Creedmoor	20	022472	10	122479
30737	BB300BLKM1	OTM BT	125	300 AAC Blackout	20	300129	10	300020
30818	BB308WM1	OTM BT	175	308 Win	20	150885	10	150882
30740	BB300WMM1	OTM BT	220	300 Win Mag	20	150908	10	150905
30728	BB338LMM1	OTM BT	300	338 Lapua Mag	20	150915	10	150912

**M/LE TAC-X BULLETS**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30155*	223 Cal / 5.56 x 45mm	0.224"	55	TAC-X FB	50	224050	10
30156*	223 Cal / 5.56 x 45mm	0.224"	62	TAC-X BT	50	224067	10
30158*	223 Cal / 5.56 x 45mm	0.224"	70	TAC-X BT	50	224074	10
30239	6.5mm	0.264"	120	TAC-X BT	50	264230	10
30257	6.8mm	0.277"	85	TAC-X FB	50	277339	10
30259	6.8mm	0.277"	110	TAC-X BT	50	277346	10
30336	30 Cal	0.308"	110	TAC-X FB	50	308217	10
30337	30 Cal	0.308"	150	TAC-X BT	50	308248	10
30338	30 Cal	0.308"	168	TAC-X BT	50	308262	10
30387	7.62 x 39mm	0.310"	123	TAC-X BT	50	310036	10
30403	338 Lapua Mag	0.338"	285	TAC-X BT	50	338078	10
30695	50 BMG	0.510"	647	TAC-X BT	20	510061	10

TSX = TSX Bullet | FB = Flat Base | TTSX = Tipped TSX Bullet | BT = Boat Tail | BND SLD = Banned Solids | RN = Round Nose | XPB = XPB Pistol Bullet | FN = Flat Nose

TAC-XP = TAC-XP Pistol Bullet | LRX = Long Range X Bullet | OTM = Open Tip Match

\* Special Barrel Twist Requirements: 30846 requires 1:9" twist or faster, 30848 requires 1:8" twist or faster, 30158 requires 1:8" twist or faster, 30156 requires 1:9" twist or faster,

30155 requires 1:10" twist or faster.

**M/LE TAC-TX BULLETS**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30236	6.5mm	0.264"	100	TAC-TX BT	50	264124	10
30237	6.5mm	0.264"	120	TAC-TX BT	50	264148	10
30253	6.8mm	0.277"	95	TAC-TX BT	50	277216	10
30321	300 AAC Blackout	0.308"	110	TAC-TX FB	50	308118	10
30358	30 Cal	0.308"	110	TAC-TX FB	50	308514	10
30320	300 AAC Blackout	0.308"	120	TAC-TX BT	50	308125	10
30359	30 Cal	0.308"	168	TAC-TX BT	50	308569	10
30420	338 Cal	0.338"	225	TAC-TX BT	50	338566	10
30419	338 Lapua Mag	0.338"	265	TAC-TX BT	50	338580	10
30640	458 SOCOM	0.458"	300	TAC-TX BT	50	458639	10
31142	6.5mm	0.264"	115	TAC-TX BT	50	264094	10

**M/LE TAC-XP PISTOL BULLETS**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30440	380 Auto	0.355"	80	TAC-XP FB	40	355006	10
30444	9mm Luger	0.355"	95	TAC-XP FB	40	355020	10
30442	9mm Luger	0.355"	115	TAC-XP FB	40	355013	10
30446	357 Sig	0.355"	125	TAC-XP FB	40	355037	10
30449	38 Spl	0.357"	110	TAC-XP FB	40	357031	10
30451	357 Mag	0.357"	125	TAC-XP FB	40	357130	10
30500	10mm Auto/40 S&W	0.400"	125	TAC-XP FB	40	400034	10
30502	10mm Auto/40 S&W	0.400"	140	TAC-XP FB	40	400058	10
30504	10mm Auto	0.400"	155	TAC-XP FB	40	400065	10
30539	44 S&W Spl	0.429"	200	TAC-XP FB	40	429127	10
30550	45 Auto	0.451"	160	TAC-XP FB	40	451067	10
30552	45 Auto	0.451"	185	TAC-XP FB	40	451081	10

**M/LE TAC-LR BULLETS (LONG RANGE SOLIDS)**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30702	50 BMG	0.510"	750	TAC-LR BT	20	510665	10
30705	50 BMG	0.510"	750	TAC-LR Tangent BT	20	510764	10

**M/LE TAC-RRLP BULLETS (REDUCED RICOCHET LIMITED PENETRATION)**

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30161	223 CAL/5.56 x 45mm	0.224"	55	RRLP FB	100	224142	10
30252	6.8mm	0.277"	85	RRLP FB	100	277117	10
30313	30 Cal	0.308"	150	RRLP FB	50	308026	10



## MATCH / RANGE / TARGET SPECIFICATIONS

### RANGE AR

ORDER NUMBER	INDEX NUMBER	BULLET STYLE	WEIGHT (GR)	CARTRIDGE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE	UPC CASE 716876
30844	BB556Z1	Zn Core OTFB	52	5.56 x 45mm	20	15111 0	10	15111 7
30733	BB300BLKZ1	Zn Core OTFB	90	300 AAC Blackout	20	15087 8	10	15087 5

### MATCH BURNERS

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30160	22 Cal	0.224"	52	Match Burner OTM FB	100	22413 5	10
30162*	22 Cal	0.224"	69	Match Burner OTM BT	100	22415 9	10
30164*	22 Cal	0.224"	85	Match Burner OTM BT	100	22417 3	10
30205	6mm	0.243"	68	Match Burner OTM FB	100	24313 6	10
30206*	6mm	0.243"	105	Match Burner OTM BT	100	24316 7	10
30864*	6mm	0.243"	112	Match Burner OTM BT	100	24311 2	10
30234	6.5mm	0.243"	120	Match Burner OTM BT	100	26401 8	10
30230	6.5mm	0.264"	140	Match Burner OTM BT	100	26404 9	10
30100	6.5mm	0.264"	145	Match Burner OTM BT	100	26407 0	10
30285	7mm	0.284"	171	Match Burner OTM BT	100	28414 6	10
30381	30 Cal	0.308"	155	Match Burner OTM BT	100	30892 7	10
30385	30 Cal	0.308"	175	Match Burner OTM BT	100	30896 5	10

### MATCH BURNERS BULK PACKS

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
31120	6mm	0.243"	105	Match Burner BT	500	22413 5	2
31122	6mm	0.243"	112	Match Burner BT	500	22415 9	2
31144	6.5mm	0.264"	140	Match Burner BT	500	22417 3	2
30102	6.5mm	0.264"	145	Match Burner BT	500	26408 7	2

### MPG BULLETS (MULTI-PURPOSE GREEN, LEAD-FREE)

ORDER NUMBER	BULLET DESCRIPTION	NOMINAL BULLET DIA.	WEIGHT (GR.)	BULLET TYPE	ROUNDS PER BOX	UPC BOX 716876	BOXES PER CASE
30195*	223 Cal / 5.56mm	0.224"	55	MPG FB	100	22476 0	10
30249	6.8mm	0.277"	85	MPG FB	100	27701 8	10
30331	30 Cal	0.308"	150	MPG FB	50	30817 0	10
30388	7.62 X 39mm	0.310"	108	MPG FB	50	31008 1	10

## ACCESSORIES

### ACCESSORIES

ORDER NUMBER	DESCRIPTION	UPC BOX 716876	BOXES PER CASE
30745	Barnes Reloading Manual #4	01108 7	10
30756	CR-10 Bore Cleaner 2 Oz Bottle	00210 8	10
30755	CR-10 Bore Cleaner 8 Oz Bottle	00810 0	10

### MUZZLELOADER TOOLS

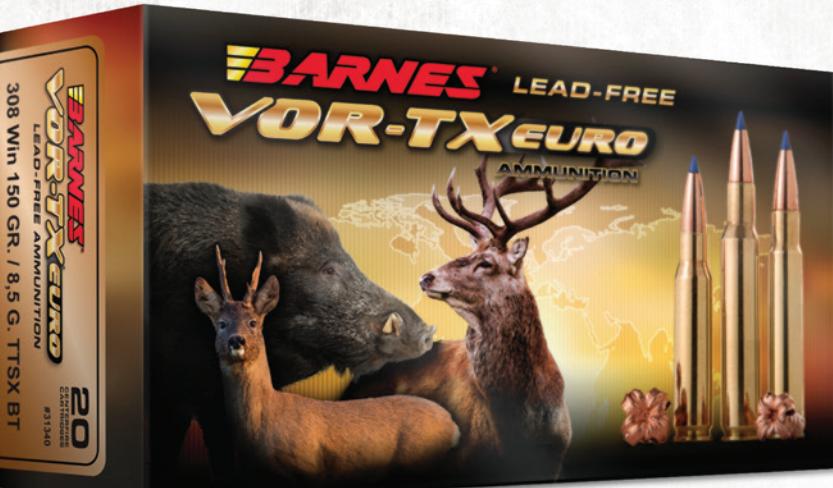
ORDER NUMBER	DESCRIPTION	UPC BOX 716876	BOXES PER CASE
30547	45 CAL MZ Aligner Tool	04500 6	10
30661	50 CAL MZ Aligner Tool	05000 0	10
30678	50 CAL SPTF Aligner Tool	05005 5	10
30763	50 CAL TMZ & T-EZ Aligner Tool	05007 9	10
30708	54 CAL MZ Aligner Tool	05400 8	10

## CENTERFIRE RIFLE BALLISTICS

CARTRIDGE	INDEX / EDI NO.	WT. (GR.)	BULLET STYLE	SIGHT HEIGHT (INCHES)	ZERO (YARDS)	VELOCITY (FPS)				ENERGY (FT-LB)				TRAJECTORY (INCHES)				BALLISTIC COEFFICIENT
						MZL	100	200	300	MZL	100	200	300	MZL	100	200	300	
223 Remington	BB23R2	55	TSX FB	1.5	200	3240	2774	2353	1970	1282	940	676	474	-1.5	1.5	0.0	-7.9	0.209
	BB556Z1	55	Zinc FB	2.5	200	3150	2705	2301	1934	1146	845	612	432	-2.5	1.2	0.0	-7.8	0.215
	BB556X1	62	TSX BT	2.5	200	3000	2674	2370	2086	1239	984	773	599	-2.5	1.2	0.0	-7.4	0.287
	BB556M1	69	MATCH BURNER OTM BT	2.0	100	2900	2621	2359	2111	-	-	-	-	-2.0	0.0	-3.1	-12.4	0.330
	BB556X2	70	TSX BT	2.5	200	2850	2560	2289	2034	1263	1019	814	643	-2.5	1.4	0.0	-8.1	0.314
	BB556M2	85	MATCH BURNER OTM BT	2.0	100	2600	2385	2180	1986	-	-	-	-	-2.0	0.0	-4.1	-15.6	0.403
22-250 Remington	BB225XF1	50	TSX FB	1.5	200	3830	3267	2771	2326	1629	1185	853	601	-1.5	0.9	0.0	-5.5	0.197
6mm Creedmoor	BB6CRDM1	112	MATCH BURNER OTM BT	2.0	100	2960	2808	2662	2520	-	-	-	-	-2.0	0.0	-2.4	-9.7	0.624
243 Win	BB243W1	80	TTSX BT	1.5	200	3350	3042	2755	2486	1994	1644	1349	1098	-1.5	1.1	0.0	-5.7	0.331
25-06 Remington	BB25062	100	TTSX BT	1.5	200	3225	2947	2686	2439	2310	1929	1602	1322	-1.5	1.3	0.0	-6.1	0.357
6.5 Creedmoor	BB65CRD1	120	TTSX BT	1.5	200	2910	2685	2470	2266	2257	1921	1626	1368	-1.5	1.7	0.0	-7.4	0.412
	BB65CRDM1	140	MATCH BURNER OTM BT	2.0	100	2700	2548	2400	2258	-	-	-	-	-2.0	0.0	-3.4	-12.8	0.586
6.5 Grendel	BB65GREN1	120	MATCH BURNER OTM BT	1.5	100	2590	2401	2221	2048	-	-	-	-	-1.5	0.0	-4.5	-16.1	0.460
260 Remington	BB260XTBT1	120	TTSX BT	1.5	200	2950	2723	2506</td										

# HUNTING PRECISION AND PERFORMANCE THAT REACHES FROM AMERICA TO THE FIELDS AND WOODS OF EUROPE.

Barnes VOR-TX EURO delivers hand-loaded precision in a factory round super-engineered to stop European game in its tracks.



## VOR-TX EURO:

VOR-TX EURO is precision loaded with the venerable Barnes all-copper, lead-free bullets and conforms to CIP pressure standards. This ensures safe operation and maximum ballistic potential, while offering European hunters the accuracy and terminal performance that surpasses lead-core bullets on both thin-skinned and heavy game.

**NOTE: VOR-TX EURO products are not available for sale in North America.**

**The VOR-TX EURO line is available in the following cartridges and bullet weights:**

ORDER NUMBER	INDEX NUMBER	BULLET STYLE	WEIGHT (GR.)	CARTRIDGE	ROUNDS PER BOX	UPC BOX 718876	BOXES PER CASE	UPC CASE 716876
31300	BB764EU1	LRX BT	145	7 x 64 Brenneke	20	15105 9	10	05105 2
31306	BB8X57EU1	TTSX	160	8 x 57 IS	20	15104 2	10	05104 5
31312	BB93X62EU1	TTSX	250	9.3 x 62mm	20	15103 5	10	05103 8
31330	BB3006EU1	TTSX	150	30-06 SPRG	20	15102 8	10	05102 1
31331	BB3006EU2	TTSX	168	30-06 SPRG	20	15101 1	10	05101 4
31333	BB3006EU3	TTSX	180	30-06 SPRG	20	15100 4	10	05100 7
31340	BB308EU1	TTSX	130	308 Win	20	15108 0	10	05108 3
31341	BB308EU2	TTSX	150	308 Win	20	15106 6	10	05106 9
31342	BB308EU3	TTSX	168	308 Win	20	15107 3	10	05107 6

## CENTERFIRE RIFLE BALLISTICS

CARTRIDGE	INDEX / EDI NO.	WT. (GR)	SIGHT HEIGHT (INCHES)	ZERO (YARDS)	VELOCITY (FPS)					ENERGY (FT-LB)					TRAJECTORY (INCHES)					BALLISTIC COEFFICIENT			
					MZL	100	200	300	400	500	MZL	100	200	300	400	500	MZL	100	200	300	400		
6mm Creedmoor	30232	95	15	200	3150	2925	2711	2507	2312	2126	2094	1805	1551	1326	1128	953	-1.5	1.29	0.0	-6.02	-17.59	-35.68	0.436
6.5 Creedmoor	LR65CR01	127	15	200	2825	2630	2443	2263	2092	1928	2251	1951	1683	1445	1234	1048	-1.5	1.8	0.0	-7.6	-22.0	-44.4	0.468
270 Win	31198	129	15	200	3140	2928	2726	2533	2348	2171	2825	2457	2130	1839	1580	1351	-1.5	1.28	0.0	-5.96	-17.36	-35.06	0.463
7mm Remington Magnum	LR7MM01	139	15	200	3210	2998	2796	2603	2418	2240	3181	2775	2413	2091	1804	1549	-1.5	1.2	0.0	-5.6	-16.4	-33.2	0.470
7mm Remington Ultra Mag	LR7RUM01	145	15	200	3350	3138	2936	2743	2558	2381	3613	3170	2775	2422	2107	1825	-1.5	1.0	0.0	-5.1	-14.7	-29.7	0.486
300 Win Mag	LR300W01	190	15	200	2880	2694	2516	2345	2180	2022	3500	3084	2672	2321	2006	1726	-1.5	1.7	0.0	-7.2	-20.6	-41.4	0.499
300 Remington Ultra Mag	LR300R01	190	15	200	3125	2943	2769	2602	2440	2284	4121	3656	3236	2856	2513	2202	-1.5	1.3	0.0	-5.8	-16.7	-33.5	0.540
338 Remington Ultra Mag	LR338R01	250	15	200	2910	2755	2604	2459	2319	2183	4702	4213	3766	3358	2985	2645	-1.5	1.5	0.0	-6.7	-19.1	-38.0	0.602
375 Remington Ultra Mag	LR375R01	270	15	200	2980	2770	2569	2377	2193	2017	5325	4600	3957	3387	2883	2440	-1.5	1.5	0.0	-6.8	-19.8	-40.0	0.449

 VOR-TX LR

## PISTOL & REVOLVER BALLISTICS

CARTRIDGE	INDEX / EDI NO.	WT. (GR)	BULLET STYLE	SIGHT HEIGHT (INCHES)	ZERO (YARDS)	VELOCITY (FPS)			ENERGY (FT-LB)			TRAJECTORY (INCHES)			BALLISTIC COEFFICIENT
						MZL	25	50	MZL	25	50	MZL	25	50	
357 Mag**	BP0357M2	125	TAC-XP	0.9	25	1200	1140	1089	400	361	330	0.0	-0.8	-0.8	
	BB357M2	140	XPB	0.9	25	1265	1192	1130	498	442	397	0.0	-0.6	-0.6	
9mm Luger + P †	BP09MM1	115	TAC-XP	0.9	25	1125	1079	1040	323	297	276	0.0	-1.0	-1.0	
380 Auto	BP0380A1	80	TAC-XP	0.9	25	990	948	911	174	160	147	0.0	-1.5	-1.5	
40 S&W	BP040SW1	140	TAC-XP	0.9	25	1120	1066	1018	394	353	323	0.0	-1.0	-1.0	
10mm Auto	BB10MMA1	155	XPB	0.9	25	1150	1105	1067	455	421	392	0.0	-0.9	-0.9	
41 Remington Magnum**	BB41MAG1	180	XPB	0.9	25	1520	1403	1298	924	787	673	0.0	-0.2	-0.2	
44 Remington Magnum**	BB44MAG1	225	XPB	0.9	25	1235	1172	1118	762	687	625	0.0	-0.7	-0.7	
45 Colt	BB45CLT1	200	XPB	0.9	25	1025	983	947	467	429	398	0.0	-1.4	-1.4	
45 Auto + P †	BP045AP1	185	TAC-XP	0.9	25	1000	971	945	411	387	367	0.0	-1.4	-1.4	
454 Casull**	BB454CAS1	250	XPB	0.9	25	1700	1582	1472	1605	1390	1203	0.0	0.0	0.0	

NOTE: Centerfire rifle ballistics were generated with a test barrel length of 24" except 5.56 x 45mm which used a 20" barrel and 300 AAC Blackout which used a 16" barrel. Use only in firearms designated for this cartridge and so recommended by the manufacturer. Specifications are nominal ballistics figures established in test barrels. Individual firearm may vary from test barrel results.

0.0 indicates yardage at which firearm was sighted in.

Down range ballistics are calculated at standard conditions. All distances measured in yards.

‡ Ammunition with "+P" on the case headstamp is loaded to higher pressure. Use only in firearms designated for this cartridge and so recommended by the firearm's manufacturer.

† Warning: full pressure load. Not for use in all 45-70 rifles. Injury or death may result from use in firearms not designated for modern SAAMI pressure for this cartridge (e.g. Trapdoor rifles). \*\*Vented barrel ballistics

Requires a 1:20" barrel twist rate or faster: VOR-TX handgun 44 Remington mag 225 grain XPB

For additional ballistics information, refer to the product pages at barnesbullets.com

 VOR-TX HANDGUN

**MUZZLELOADER BALLISTICS**

SPIT-FIRE T-EZ TRAJECTORY (IN)					
50 CAL. 250 GR.			BC 0.195		
Muzzle Velocity	1700 FPS	1900 FPS	2000 FPS	2100 FPS	2200 FPS
MUZZLE	-1.5	-1.5	-1.5	-1.5	-1.5
50 yd.	3.0	2.2	1.9	1.6	1.4
100 yd.	3.8	2.9	2.6	2.3	2.0
150 yd.	0.0	0.0	0.0	0.0	0.0
200 yd.	-9.3	-7.4	-6.6	-5.9	-5.3
250 yd.	-25.3	-20.3	-18.1	-16.3	-14.6
300 yd.	--	-39.6	-35.6	-32.1	-28.9

50 CAL. 290 GR.						BC 0.223					
Muzzle Velocity	1650 FPS	1750 FPS	1850 FPS	1950 FPS	2050 FPS	Muzzle Velocity	1700 FPS	1900 FPS	2000 FPS	2100 FPS	2200 FPS
MUZZLE	-1.5	-1.5	-1.5	-1.5	-1.5	MUZZLE	-1.5	-1.5	-1.5	-1.5	-1.5
50 yd.	3.1	2.6	2.3	1.9	1.6	50 yd.	3.0	2.2	1.9	1.6	1.4
100 yd.	3.8	3.4	3.0	2.6	2.3	100 yd.	3.8	3.0	2.6	2.3	2.0
150 yd.	0.0	0.0	0.0	0.0	0.0	150 yd.	0.0	0.0	0.0	0.0	0.0
200 yd.	-9.3	-8.3	-7.3	-6.5	-5.8	200 yd.	-9.5	-7.5	-6.7	-6.0	-5.4
250 yd.	-25.0	-22.3	-19.9	-17.7	-15.9	250 yd.	-25.7	-20.6	-18.5	-16.6	-14.9
300 yd.	--	--	-38.5	-34.5	-31.0	300 yd.	--	-40.4	-36.4	-32.8	-29.5

Note: Use with Barnes TMZ / T-EZ Aligner #30763

SPIT-FIRE TMZ TRAJECTORY (IN)					
50 CAL. 250 GR.			BC 0.210		
Muzzle Velocity	1700 FPS	1900 FPS	2000 FPS	2100 FPS	2200 FPS
MUZZLE	-1.5	-1.5	-1.5	-1.5	-1.5
50 yd.	2.9	2.0	1.8	1.5	1.3
100 yd.	3.7	2.8	2.5	2.2	1.9
150 yd.	0.0	0.0	0.0	0.0	0.0
200 yd.	-9.0	-7.1	-6.3	-5.7	-5.1
250 yd.	-24.3	-19.4	-17.4	-15.5	-14.0
300 yd.	--	-37.8	-33.9	-30.5	-27.5

50 CAL. 290 GR.						BC 0.241					
Muzzle Velocity	1650 FPS	1750 FPS	1850 FPS	1950 FPS	2050 FPS	Muzzle Velocity	1700 FPS	1900 FPS	2000 FPS	2100 FPS	2200 FPS
MUZZLE	-1.5	-1.5	-1.5	-1.5	-1.5	MUZZLE	-1.5	-1.5	-1.5	-1.5	-1.5
50 yd.	3.0	2.6	2.2	1.9	1.6	50 yd.	3.0	2.6	2.2	1.9	1.6
100 yd.	3.8	3.3	2.9	2.5	2.2	100 yd.	3.8	3.3	2.9	2.5	2.2
150 yd.	0.0	0.0	0.0	0.0	0.0	150 yd.	0.0	0.0	0.0	0.0	0.0
200 yd.	-9.0	-8.0	-7.1	-6.3	-5.6	200 yd.	-9.0	-8.0	-7.1	-6.3	-5.6
250 yd.	-24.1	-21.5	-19.1	-17.0	-15.2	250 yd.	-24.1	-21.5	-19.1	-17.0	-15.2
300 yd.	--	--	-36.9	-33.0	-29.6	300 yd.	--	--	-36.9	-33.0	-29.6

Note: Use with Barnes TMZ / T-EZ Aligner #30763

SPIT-FIRE MZ TRAJECTORY (IN)					
50 CAL. 245 GR.			BC 0.203		
Muzzle Velocity	1700 FPS	1900 FPS	2000 FPS	2100 FPS	2200 FPS
MUZZLE	-1.5	-1.5	-1.5	-1.5	-1.5
50 yd.	3.0	2.2	1.8	1.6	1.3
100 yd.	3.7	2.9	2.5	2.2	2.0
150 yd.	0.0	0.0	0.0	0.0	0.0
200 yd.	-9.2	-7.2	-6.5	-5.8	-5.2
250 yd.	-24.8	-19.8	-17.7	-15.9	-14.3
300 yd.	--	-38.6	-34.7	-31.2	-28.1

50 CAL. 285 GR.						BC 0.239					
Muzzle Velocity	1650 FPS	1750 FPS	1850 FPS	1950 FPS	2050 FPS	Muzzle Velocity	1700 FPS	1900 FPS	2000 FPS	2100 FPS	2200 FPS
MUZZLE	-1.5	-1.5	-1.5	-1.5	-1.5	MUZZLE	-1.5	-1.5	-1.5	-1.5	-1.5
50 yd.	3.0	2.6	2.2	1.9	1.6	50 yd.	3.0	2.6	2.2	1.9	1.6
100 yd.	3.8	3.3	2.9	2.5	2.2	100 yd.	3.8	3.3	2.9	2.5	2.2
150 yd.	0.0	0.0	0.0	0.0	0.0	150 yd.	0.0	0.0	0.0	0.0	0.0
200 yd.	-9.0	-8.0	-7.1	-6.3	-5.6	200 yd.	-9.0	-8.0	-7.1	-6.3	-5.6
250 yd.	-24.2	-21.5	-19.2	-17.1	-15.3	250 yd.	-24.2	-21.5	-19.2	-17.1	-15.3
300 yd.	--	--	-37.1	-33.2	-29.7	300 yd.	--	--	-37.1	-33.2	-29.7

Note: Use with Barnes SPTF Aligner #30678

**MUZZLELOADER BALLISTICS**

EXPANDER MZ TRAJECTORY (IN)					
50 CAL. 250 GR.			BC 0.189		
Muzzle Velocity	1700 FPS	1900 FPS	2000 FPS	2100 FPS	2200 FPS
MUZZLE					



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