

# SHOTSHELL AMMUNITION 101

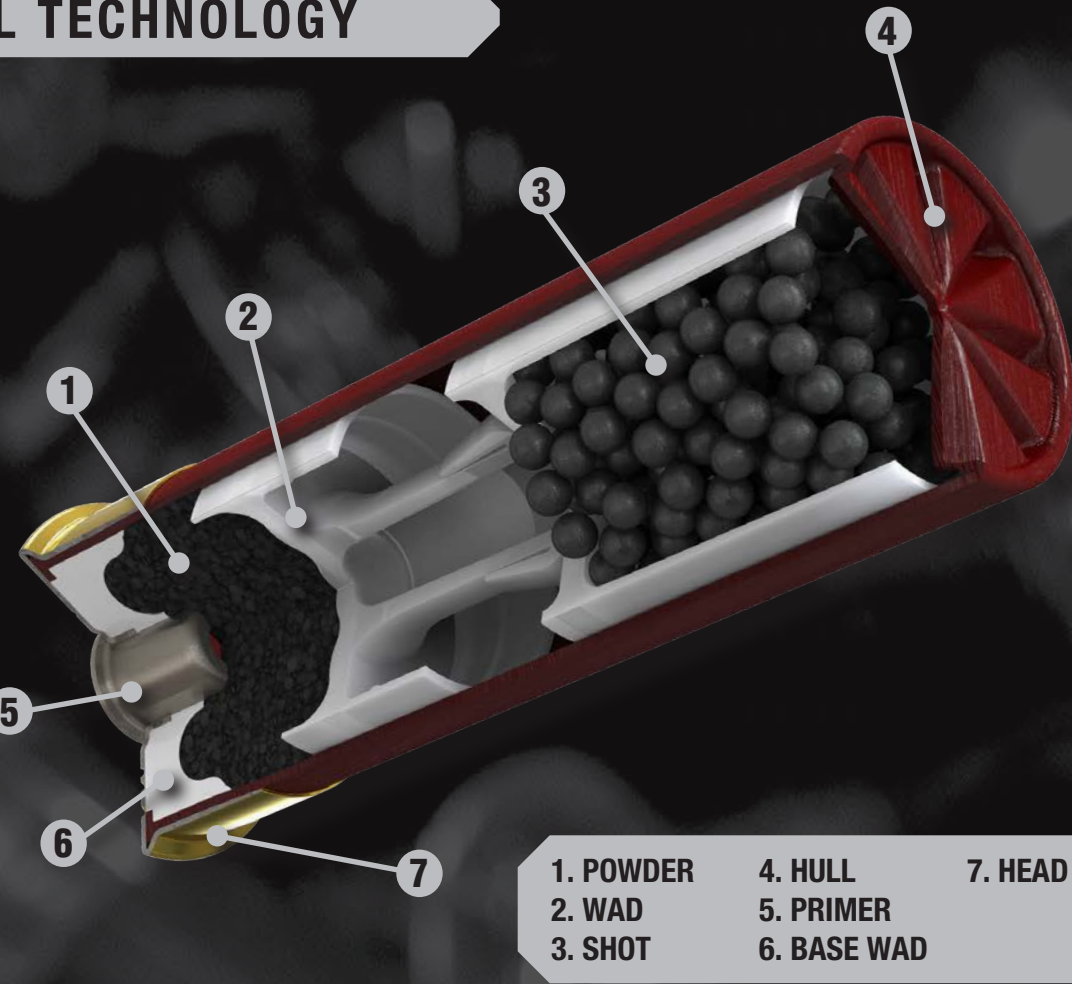
## SHOTSHELL TECHNOLOGY

### THE BASIC SHOTSHELL EXPLAINED

With so many options on the market today, it's good to know the basic anatomy of a shotgun shell and what the differences are. Do your research, know your target and test your gun. Be prepared and be effective.

### SHOTSHELL ANATOMY

There are several gauges of shotshells available: 10, 12, 16, 20, 28 and .410 bore. Their lengths and payloads vary from the 2 1/2-inch, 1/2-ounce .410 to the 3 1/2-inch, 2 1/4-ounce 10-gauge. They are loaded with fine bird shot or larger buckshot pellets made of lead, steel or tungsten alloy. Some loads have a granulated plastic buffer, which prevents pellet deformation and produces tight, uniform patterns. A plastic tube called the hull encloses a wad filled with shot, primer, powder, base wad and head.

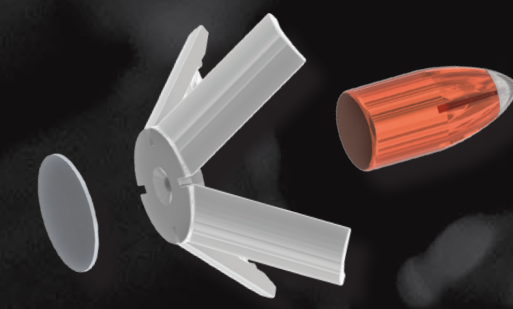


1. POWDER
2. WAD
3. SHOT
4. HULL
5. PRIMER
6. BASE WAD
7. HEAD

## SLUG TYPES

### SABOT SLUGS

These offerings are designed for use in fully rifled shotgun barrels and feature a projectile similar to a handgun bullet held in a polyethylene sleeve. This sleeve, known as a sabot, fills the bore, and grips the rifling, which imparts twist necessary for accuracy past 200 yards.

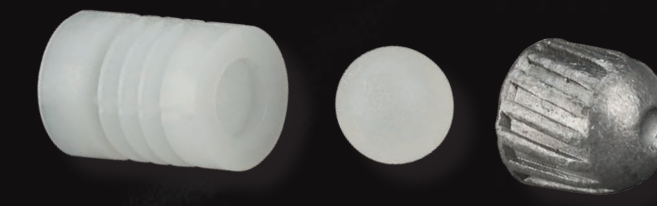


### TROPHY® COPPER SLUG

- Precision sabot provides superior in-bore alignment and consistent projectile separation at muzzle exit for the ultimate slug accuracy
- Sub-4 inch groups at 200 yards
- Deep, externally skived slug cavity for consistent, superior expansion across a broad velocity range
- Polymer tip and sleek profile increase the ballistic coefficient for higher downrange velocity and energy

### RIFLED SLUGS

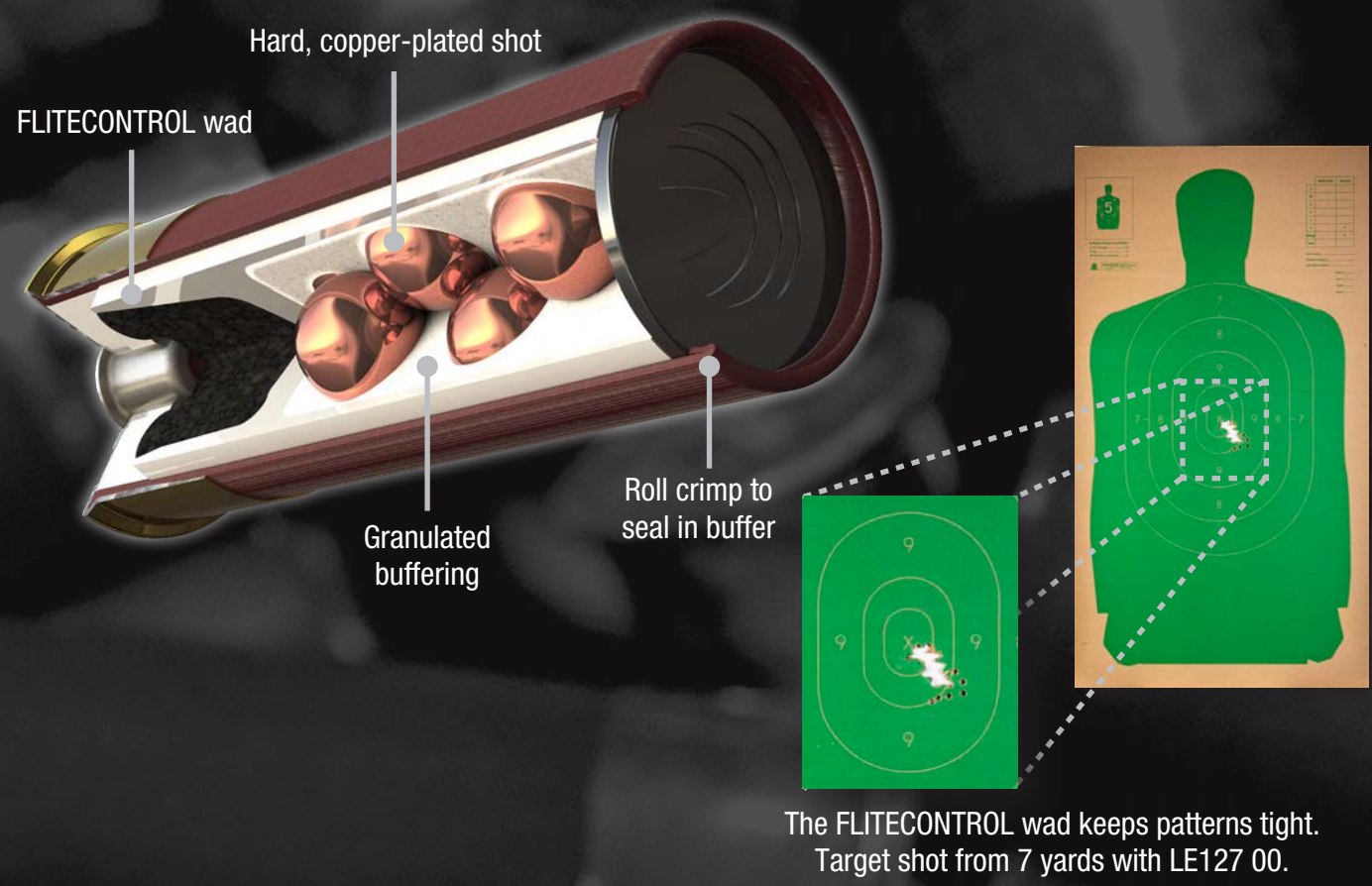
Contrary to their name, rifled slugs are designed to be fired through smoothbore shotgun barrels. Also known as Foster-style slugs, they generally feature ribbing on the sides of the lead projectile and a hollow point. The design typically has a much shorter effective range than comparable sabot slugs.



### TRUBALL® RIFLED SLUG

- Plastic ball between the wad and slug increases smoothbore accuracy
- Capable of 1.4-inch groups at 50 yards Increased downrange energy
- Clean separation of components after muzzle exit
- Harder lead in TruBall Deep Penetrator yields more penetration

## TACTICAL® BUCKSHOT WITH FLITECONTROL WAD



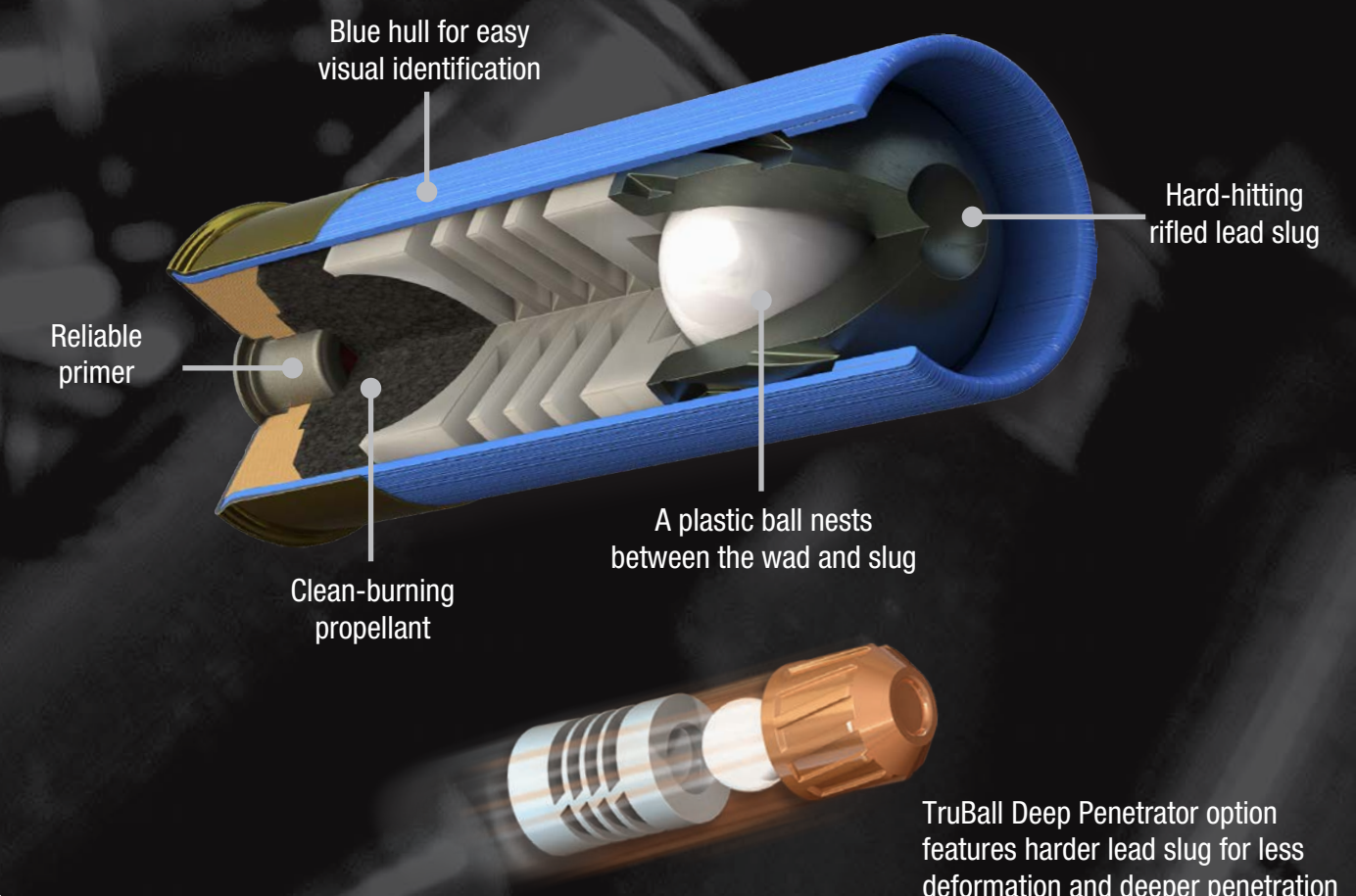
The FLITECONTROL wad keeps patterns tight. Target shot from 7 yards with LE127 00.

## CONVENTIONAL WADS VS. FLITECONTROL®

Conventional shotshells wads peel open from the front, allowing pellets to scatter, resulting in fewer hits on target. The FLITECONTROL wad is completely different. It features petals that open from the rear as the wad leaves the muzzle, creating an air brake. This allows for a clean, perfectly timed release of the payload for dense, consistent patterns.



## TACTICAL TRUBALL SLUG



## BALLISTICLEAN® FRANGIBLE SLUG

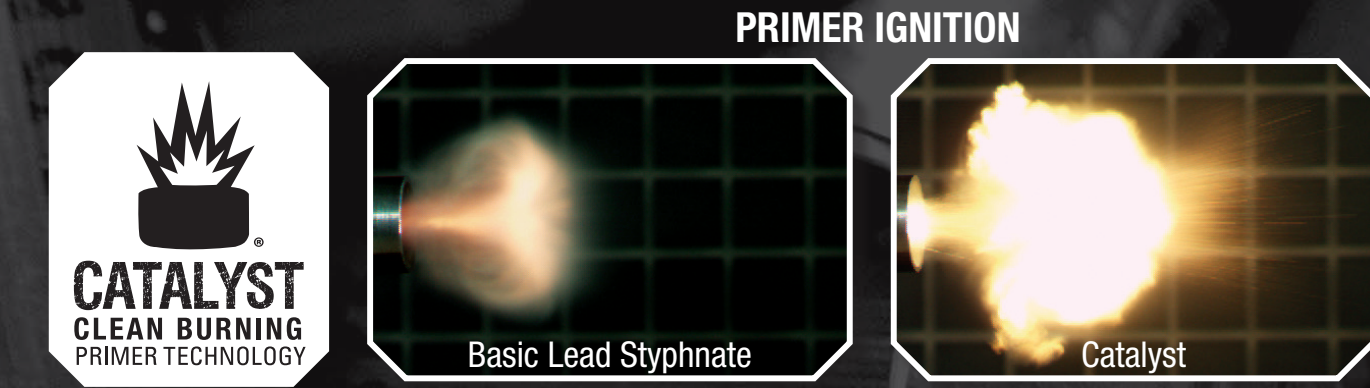


## BALLISTICLEAN FRANGIBLE BUCKSHOT



## CATALYST PRIMER TECHNOLOGY

Catalyst lead-free primer technology provides the most reliable, consistent ignition possible in range ammunition.



## SHOT SIZES

PELLET	T	BBB	BB	1	2	3	4	5	6	7	7½	8	8½	9	10
DIAMETER INCHES	.20	.19	.18	.16	.15	.14	.13	.12	.11	.10	.095	.09	.085	.08	.07
DIAMETER MM	5.08	4.83	4.57	4.06	3.81	3.56	3.30	3.05	2.79	2.54	2.41	2.29	2.16	2.03	1.78

## BUCKSHOT PELLET SIZES

PELLET	No.000	No.00	No.0	No.1	No.2	No.3	No.4
DIAMETER INCHES	.36	.33	.32	.30	.27	.25	.24
DIAMETER MM	9.14	8.38	8.13	7.62	6.86	6.35	6.10

## AVERAGE PELLET COUNT – STEEL SHOT

Shot Size	Payload Weight															
	3/4	7/8	15/16	1	1 1/8	1 1/4	1 3/8	1 1/2	1 9/16	1 5/8						
7.5	316	-	395	422	475	527	580	633	659	685						
6	236	-	295	315	354	394	433	472	492	512						
5	182	-	228	243	273	304	334	364	380	395						
4	144	168	180	192	216	240	264	288	300	312						
3	118	136	143	158	178	197	217	237	247	257						
2	94	-	117	125	141	156	172	187	195	203						
1	77	-	97	103	116	129	142	154	161	167						
BB	54	-	67	72	81	90	99	108	112	117						
BBB	46	-	58	62	70	77	85	93	97	101						
T	39	-	49	52	58	65	71	78	81	84						

Weight of Shot in Ounces (Grams)

## AVERAGE PELLET COUNT – LEAD SHOT

Shot Size	Payload Weight															
	1/2	11/16	3/4	7/8	1	1 1/8	1 1/4	1 5/16	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/4	
9	292	402	439	512	585	658	731	767	804	877	951	1024	1097	1170	1316	
8½	249	342	373	435	497	559	621	652	683	745	808	870	932	994	1118	
8	205	282	307	359	410	461	512	538	564	615	666	718	769	820	922	
7½	175	241	262	306	350	394	437	459	481	525	569	613	656	700	787	
6	112	155	169	197	225	253	281	295	309	337	366	394	422	450	506	
5	85	117	127	149	170	191	212	223	234	255	276	298	319	340	382	
4	67	93	101	118	135	152	169	177	186	202	219	236	253	270	304	
2	43	60	65	76	87	98	109	114	120	130	141	152	163	174	196	
BB	25	34	37	44	50	56	62	65	69	75	81	88	94	100	112	

Weight of Shot in Ounces (Grams) (3% Antimony)

## SHOTGUN GAUGES

### COLOR CODING

To increase safety among shooters, Federal was the first manufacturer to use color-coding for shotshells. This safety measure became an industry norm after it was introduced in 1960.



Federal Premium® LE Duty Slug loads feature a distinctive blue hull to quickly distinguish from training and buckshot loads.

## CHOKES

Constriction in a shotgun's muzzle is referred to as "choke." The three most common chokes are full, modified and improved cylinder. Lead, steel and tungsten pattern differently in each of these chokes. To determine which load provides the best pattern density and most even pellet distribution, make sure to pattern a variety of loads at different distances.

