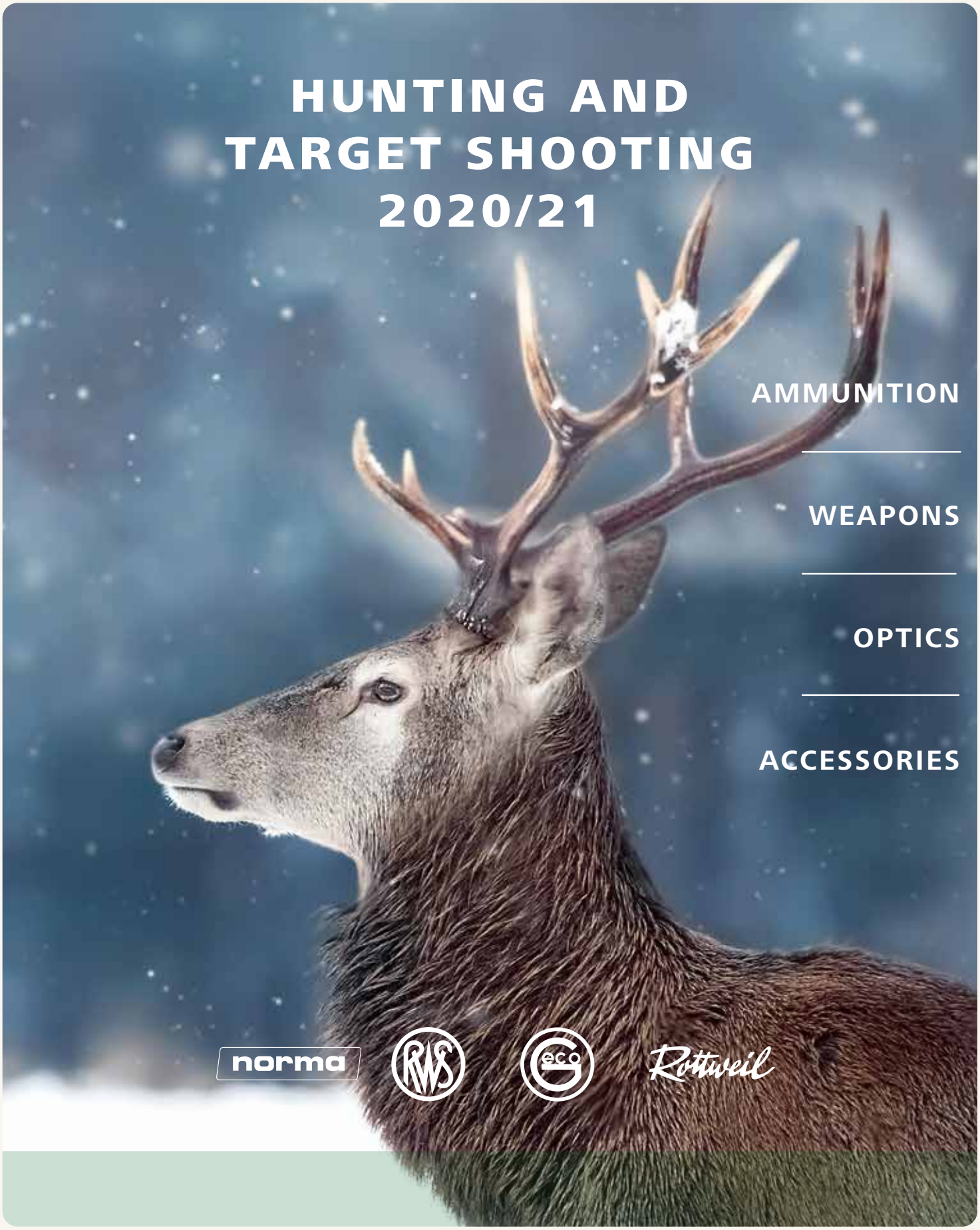
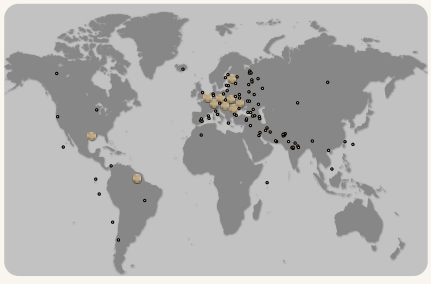


Together ahead. RUAG



SINCE 1886

THE AMMUNITION COUNTS

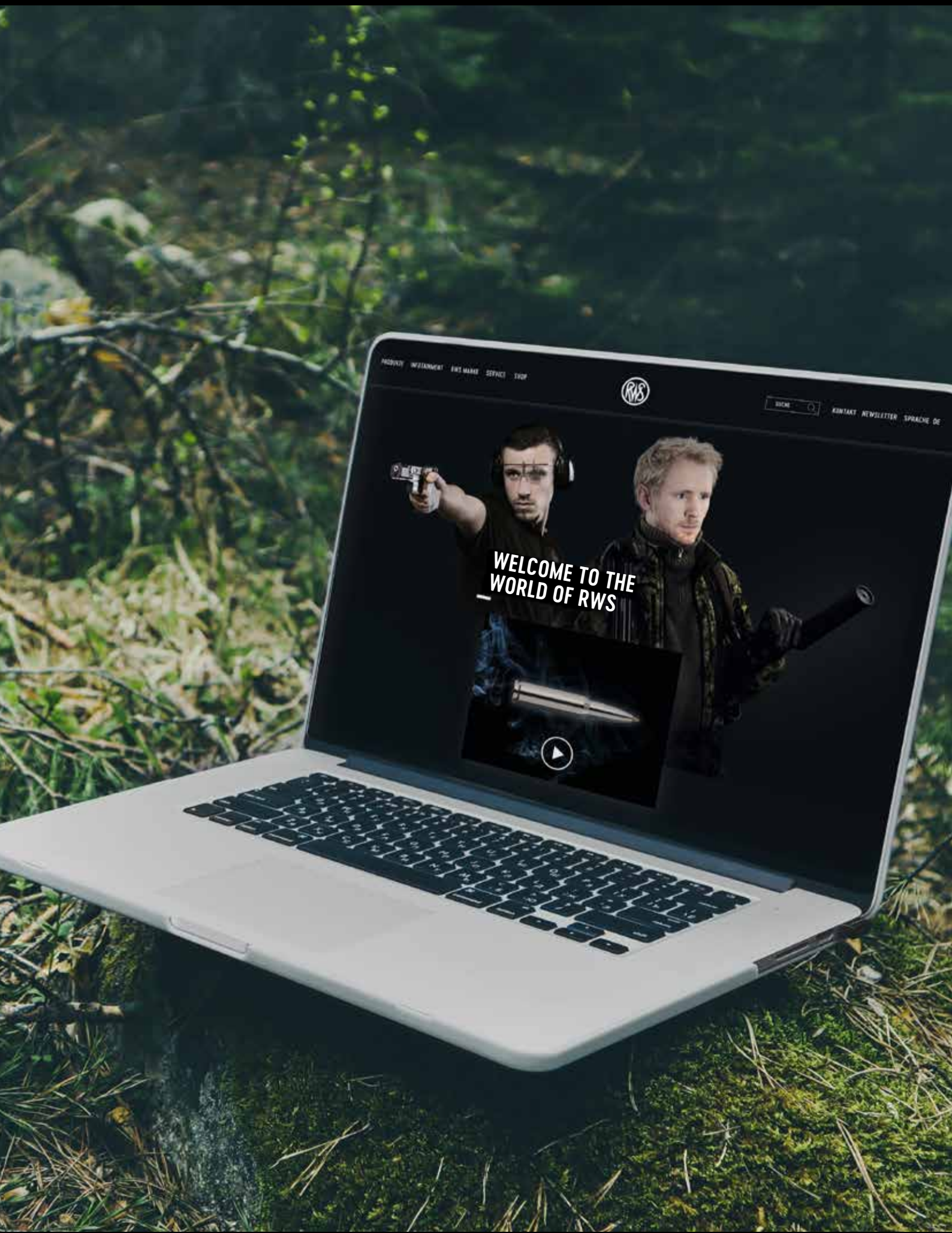
Dive into the world of RWS branding and experience our new website design – honored with the German Design Award for 2020. Get the big picture when it comes to the variety of our products, let yourself be inspired and find just the right ammunition for your individual application. Your wish is our incentive. We are only satisfied when you are.

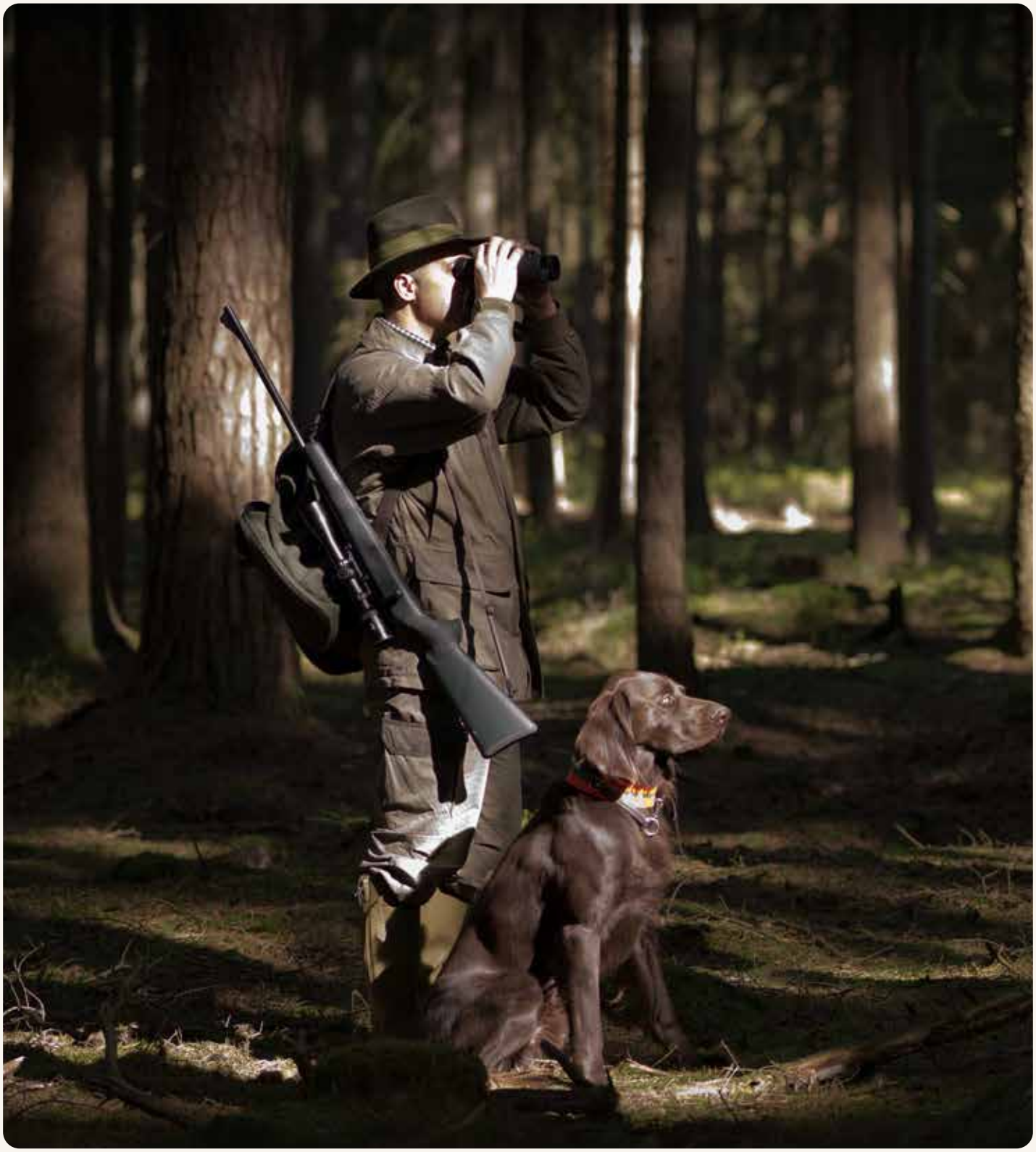
WWW.RWS-AMMUNITION.COM

By the way, you can now find Rottweil on its own branded website: www.rottweil-ammunition.com
It is well worth a visit!

GERMAN DESIGN AWARD WINNER 2020

Please also visit us on Instagram, Facebook and YouTube.


PRODUKTE
INFOTAINMENT
RWS MARKE
SERVICE
SHOP
SUCHE
KONTAKT
NEWSLETTER
SPRACHE DE
WELCOME TO THE
WORLD OF RWS



RELIABLE

VERSATILE

PRECISE

CENTREFIRE RIFLE CARTRIDGES

The ammunition counts

From the initial concept through the production process to the final visual inspection, RWS make no compromise on quality. All components go through repeated stringent quality checks before assembly. During production, all rifle cartridges are subject to multi-layered laser measurement as well as further manual checks.

More then 100 production steps with an equal number of quality control checks are necessary before an RWS rifle cartridge is considered by us to be ready for use.

RWS - no compromise!

NON-CORROSIVE

EFFECTIVE

GERMAN DESIGN AWARD WINNER 2020

FOR THE RWS BRAND RE-LAUNCH
IN THE CATEGORY
"EXCELLENT COMMUNICATIONS DESIGN - CORPORATE IDENTITY"

INNOVATIVE

RIFLE CARTRIDGE BULLETS

RWS are the only major manufacturer of rifle cartridges in the world who only offer expanding bullets of their own make. With more than nine different game bullet styles and numerous others for military, police, commercial and competition applications, RWS certainly have the widest range of bullets covering the whole shooting spectrum. Use of the most modern production methods ensure highest dimensional stability and a flawless surface texture. Only bullets that comply with the most demanding RWS specifications are found on gun dealers' shelves.

What in particular distinguishes the RWS bullets?

- extraordinary precision
- extended trajectory
- energy output in the game's body appropriate to the game's weight
- ready deformation commensurate with the shooting range
- short, if any, trailing distances

NEW

LONG-RANGE PERFORMANCE

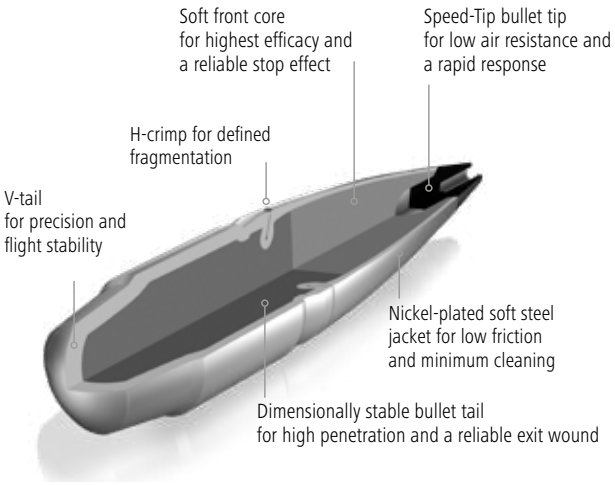
SPEED TIP PRO

Highest knock-down power at all distances

Rapid advancements in firearms and optical technologies make shooting and hunting at long ranges possible. As hunting tourism increases, so does the need for ammunition designed for hunting game animals at all ranges and of all weight classes. For example, when mountain hunting or when after heavy African game, deep penetration and great stopping power are essential. RWS have developed a modern hunting bullet to meet these demands, the new SPEED TIP PRO. It is reliable and effective for game weights of all classes from close range to 300 metres and beyond. RWS SPEED TIP PROFESSIONAL, one of the latest developments from RWS, is specially developed for great shock effect and stopping power at the longest ranges.

Its advantages at a glance:

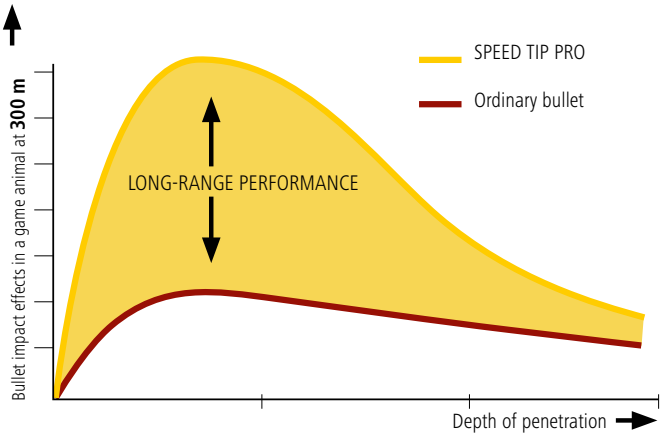
- Very high shock and stopping effect even at long shooting distances
- Extremely extended trajectory due to low air resistance
- Convincing precision
- Deep penetration



Extreme knock-down power even at long ranges

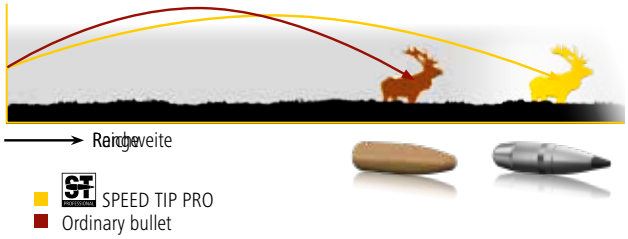
The very rapid expansion in the body of the game animal is achieved through the Speed-Tip bullet tip with its integral hollow point and easily fragmented front core. The harder rear core guarantees penetrating power. Whilst hunting, this results in greatly shortened flights and certain exit wounds with blood trails.

Simulated wound cavity in ballistic soap - .300 Win. Mag. SPEED TIP PRO at 350 m



Swift ballistics

The high velocity and extremely flat trajectory make hunting possible even at long range. These ballistics are achieved through long-range streamlining, a Speed-Tip bullet tip and a V-tail bullet base.



High precision

A convincing prerequisite for distant shots: this is guaranteed by the V-tail base and nickel-plated jacket.

EVOLUTION GREEN

Outstanding shock effect - lead free

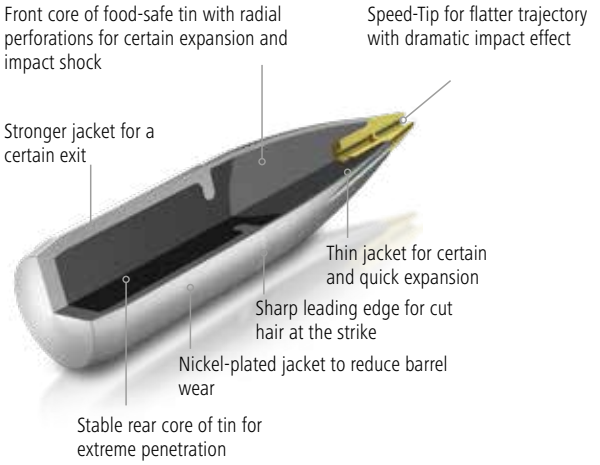
Bleifreies Geschoss GREEN™ Lead-free bullet

GREEN EVO FRAGMENTATION

The RWS EVOLUTION GREEN is a partially fragmenting, lead-free bullet featuring a series of interdependent constructive details. The RWS EVOLUTION GREEN achieves its convincing performance with dual cores made from food-safe tin and featuring a special pre-fragmentation of the frontal core. Working together with the Speed Tip point, this creates outstanding shocking power even at long ranges. This bullet is suitable for all ordinary game animals, but is ideal for use against light to medium game.

Its advantages at a glance:

- Outstanding impact behaviour and instantaneous shock effect for shorter runs after the shot and less tracking effort
- Convincing killing power - even at longer ranges
- Extended range with high velocity and energy due to a high ballistic coefficient (BC)
- Stable rear section for a guaranteed exit wound
- Sharp leading edge for cut hair at the strike



HIT

Convincing penetration - lead-free

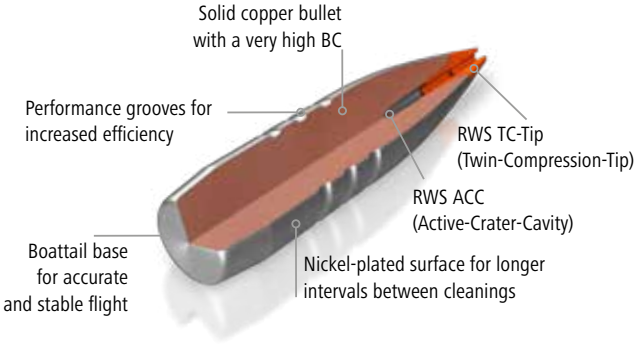
Bleifreies Geschoss GREEN™ Lead-free bullet

HIT BULLET

The RWS HIT is a lead-free expanding bullet with high weight retention due to its monolithic construction. The unique HIT Matrix with the RWS TC-Tip (Twin-Compression-Tip) and the RWS ACC (Active-Crater-Cavity) guarantees fast and certain expansion with great shocking power, even at long ranges. The compact slug, which retains 99% of its original weight, assures deep penetration and a certain exit wound - even after striking bone! This makes the RWS HIT the appropriate lead-free alternative for those favouring non-fragmenting bullets. This bullet is suitable for all ordinary game animals, but is ideal for use against medium to heavy game.

Its advantages at a glance:

- Compact slug assures deep penetration - even after striking bone or for use against larger game
- Less wasted meat thanks to non-fragmenting expansion
- The top choice for long-range game shooting in high-velocity calibres
- Powerful shock effect - even at longer ranges



RWS HIT-MATRIX

❶ RWS TC-Tip (Twin-Compression-Tip)
With 2 hollow cavities for flat trajectory and reliable initial deformation

❷ RWS ACC (Active-Crater-Cavity)
For accelerated expansion with greater shock effect

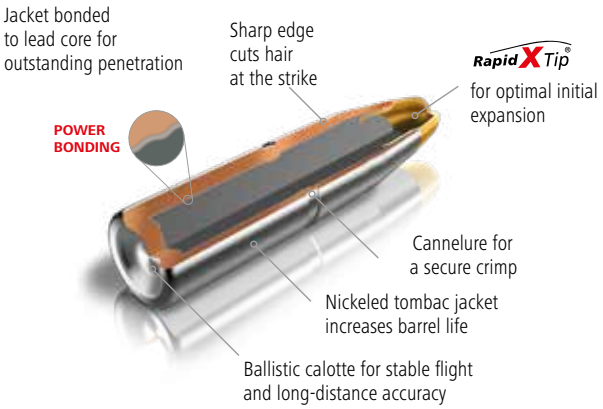
EVOLUTION

For convincing depth of penetration

The effectiveness of the Evolution® is especially clear when shooting through bones of the largest game animals. Whereas traditional semi-jacketed bullets fragment after hitting thick bone, leaving little energy left for penetration and an exit wound, the Evolution® bullet retains most of its original mass. A special Power Bonding process fuses the lead core with the tombac jacket so that an almost 100% weight retention is achieved and thereby a high probability of an exit wound with attendant reduced waste of valuable venison. The Evolution® bullet is naturally accurate due to its aerodynamic geometry and base calotte. This results in a flat trajectory and high impact energy, even at longer ranges. The Evolution®, thanks to its favourable design advantages, expands reliably regardless of the game's size or it's distance from the shooter. Its outstanding penetration may be relied upon even when encountering heavier than normal game animals.

Its advantages at a glance:

- Powerful penetration, even through heavy bone!
- Less venison waste - Power Bonding nearly eliminates fragmentation
- Aerodynamic bullet shape and ballistic calotte for outstanding accuracy
- Nickel-plated bullet jacket protects against barrel wear
- Rapid-X Tip® for quick yet controlled expansion



NEW

SPEED TIP

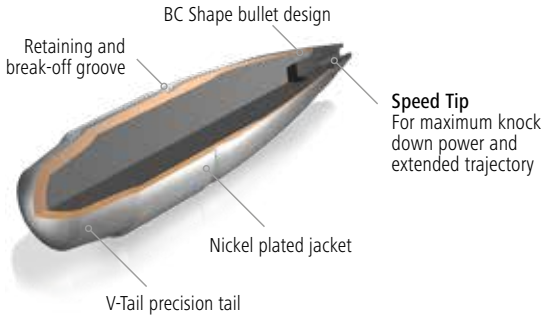
High effectiveness – even for long distance shots

From RWS, one of its latest developments is the RWS SPEED TIP which gives a very high shock effect, excellent stopping power and is also effective for long range shooting. The aerodynamically designed bullet with the new Speed Tip and V-shaped tail ensures minimum air resistance, accuracy and effect even over long distances.

The high velocity and extremely far reaching flight trajectory enables hunting at long ranges. This achieved by the effective new bullet shape which gives an impressive BC value of 0.422 (cal. 30). The very fast response in the animal body is achieved by the Speed Tip bullet with an integrated hollow point and a highly reactive bullet casing. An excellent accuracy is essential for long range shots. This is guaranteed by the precision of the V-tail rear and by the nickel-plated bullet surface.

Its advantages at a glance:

- Very high shock and stopping effect even at long shooting distances
- Extremely extended trajectory due to low air resistance
- Convincing precision

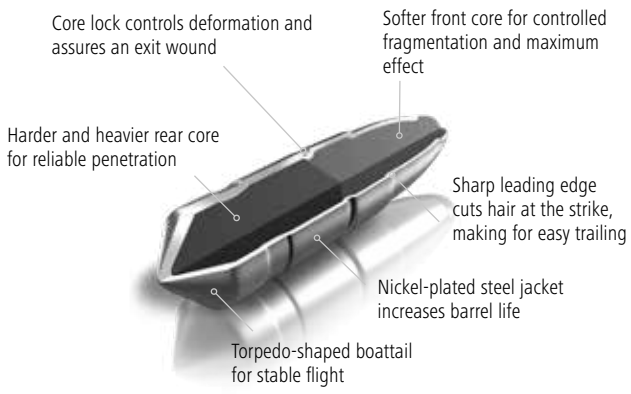


For more centrefire rifle cartridges, please see our listings in the Norma and GECO sections of this catalogue.

UNI CLASSIC
For heavy game

The UNI Classic bullet complements the ID Classic bullet and has been developed especially for the taking of heavy ungulates and big game. The harder and heavier rear core has less of a tendency to expand which in turn increases penetration. As with the ID Classic, the front core fragments reliably for a violent initial effect. The torpedo-shaped boattail assures stable flight characteristics.

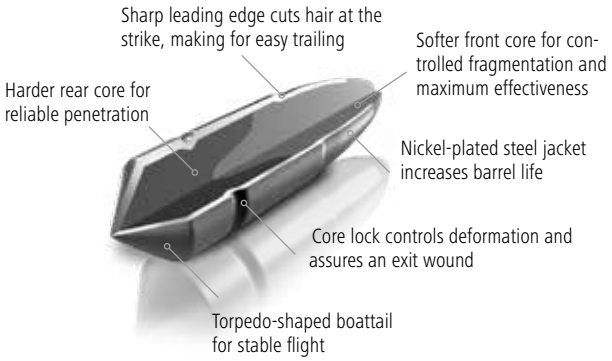
Its advantages at a glance:
- UNIVERSAL for the heaviest game
- The front core fragments to deliver a quick burst of energy into the target
- The sharp leading edge cuts hair at the strike, making for easy trailing
- Harder rear core exhibits limited deformation to deliver the desired exit wound
- Rear cannelure limits jacket fragmentation
- Little wasted meat



ID CLASSIC
For lighter game

The basic idea behind the ID Classic was to find an ideal combination of expansion as well as penetration into the target. This is achieved by joining two cores of differing hardness by the plug-and-socket method. The soft front core fragments in a controlled manner and thus delivers its energy quickly into the game. The rear core of the ID Classic - in contrast to the UNI Classic - expands more starkly and is therefore especially suitable for light to medium game. The nickel-plated mild steel jacket protects the barrel and gradually thickens towards the rear to assure controlled expansion. The torpedo-shaped boattail assures stable flight characteristics.

Its advantages at a glance:
- IDEAL for light and medium game
- Quick partial fragmentation for energetic impact
- An exit wound is the rule
- The sharp leading edge cuts hair at the strike, making for easy trailing
- Core lock to control deformation



KEGELSPITZ KS
For best accuracy

Regardless whether the game is large or small, this bullet deforms in a controlled manner and gives an even distribution of energy into the animal. A slug with an effectively enlarged frontal area remains to carry through to a certain exit. The secret lies in the optimised ratio of the thickness of the jacket to the hardness of the core. The shape of the bullet provides great accuracy and reduced air resistance.

Its advantages at a glance:
- Uncommon accuracy due to its long bearing surface
- The deep cannelure at the rear of the bullet stops deformation and provides a compact slug with a high probability of making an exit
- Leaves few fragments behind in the tissue of the game

H-MANTEL HMK
For best effect

The H-Mantel bullet is famous for its unique H-groove, a break-away constriction midway down the jacket mantle. It promotes the separation of the two bullet cores of differing hardness and is responsible for the dual action of the bullet: The front section rapidly disintegrates at the strike, delivering a massive blow. The cylindrical rear section separates at the H-groove and passes through even large game without any noticeable deformation, reliably delivering the desired exit. The base drag of the rear section ensures that most of the front section's fragments are drawn out through the wound channel behind it.

Its advantages at a glance:
- A very effective bullet
- Controlled fragmentation thanks to the H-crimp constriction
- Cylindrical rear section ensures a certain exit
- Minimal meat loss

For more centrefire rifle cartridges, please see our listings in the Norma and GECO sections of this catalogue.

DOPPELKERN DK

For controlled deformation and shock effect

The Doppelkern bullet is made of two lead cores of differing hardness. The front core fragments reliably and assures an instantaneous effect. Controlling the process of deformation is a unique tombac capsule separating the hard rear core from the softer front core. Since both cores have the same weight, a perfect mix of violent impact and probability of exit is the result. This design produces a straight wound channel for the all-important exit.

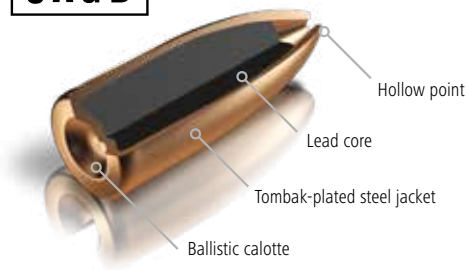
Its advantages at a glance:

- Good and certain reaction to the shot
- Extremely short runs after the shot
- The sharp leading edge cuts hair at the strike, making for easy trailing
- Controlled and rapid impact for an instantaneous effect
- Certain exit guarantees an adequate blood trail
- Minimal meat loss

MATCH JAGD MJ

For training and competition

The MATCH JAGD bullet is especially suitable for training for a hunting licence and to use in the practical examination. It is not suitable for actual hunting!



FULL METAL JACKET VM

For deepest penetration

The Full Metal Jacket VM bullet is especially suitable for the taking of predators as well as black grouse. When shooting heavy game such as buffalo, it reliably penetrates heavy bones and flesh. The prerequisite for reliable penetration is a closed point which is further reinforced in the larger calibres. Smaller calibre bullets have sharp points (VMS) whereas the larger calibres feature rounded tips (VMR).

SOFTPOINT TM

For great energy delivery

The Softpoint is a bullet type that has for decades been a proven performer and still has many admirers. Thanks to its proven design, this bullet delivers great energy into the game and has good stopping power. With rugged round (TMR) or pointed (TMS) bullet tips.

Its advantages at a glance:

- Quickly deforms in both light as well as heavy game
- Great energy delivery
- Rugged nose for rough duty

WHICH IS THE BEST BULLET?

The fascination with the chase is that there is always something new. That is why there is no universal answer to the question. ‚Which is the best bullet'? The type of game, how it is taken, distance, calibre, weapon and of course the sportsman's personal preference all determine what the ‚right' bullet should be like. RWS fulfil these demands with our comprehensive selection of loads and bullets for every purpose. The following table lists some relevant properties of RWS game bullets to help you find the ideal one for your needs.

	Bullet type*	Escape distance	Penetration	Shock effect	Exit wound	Meat wastage
	PFRAG	very short	medium	very high	certain	varying
	EXP	short	very deep	high	certain	very little
	PFRAG	very short	medium	very high	certain	varying
	EXP	short	very deep	high	certain	very little
	PFRAG	very short	medium	very high	as a rule	varying
	PFRAG	very short	deep	very high	as a rule	varying
	PFRAG	short	deep	high	certain	little
	PFRAG	very short	deep	very high	as a rule	little
	PFRAG	very short	medium	very high	certain	varying
	PFRAG	short	deep	high	as a rule	little
	PFRAG	short	medium	high	as a rule	varying
	---	short	medium	medium	certain	very little

*PFRAG = Partially fragmenting bullet, EXP = Expanding bullet

THE PRIMER SEAL

Cartridges of the same calibre may have bullets of the same design yet with different weights. RWS make it easy for you to tell them apart: Cartridges with heavier bullets have either a red or green primer sealant (see chart).

With cartridges of the same calibre:
Lightest weight bullet: No primer seal
Medium weight bullet: Green primer seal
Heaviest weight bullet: Red primer seal

THE CALIBRE

To be certain that you have the correct calibre cartridge for your rifle, it is important to note the full calibre designation as well as any additional information. Taking the 7 x 64 as an example, the first numeral 7 indicates the approximate bullet diameter or the inner diameter of the rifle barrel in millimetres. The numeral 64 indicates the approximate length of the empty cartridge case in millimetres. In English-speaking countries, the calibre is most often designated in inches (1 in. = 25.4 mm) without any indication of the case length, Instead, some clue to the origin of the cartridge is included. For example, .30-06 signifies a calibre of 0.30 inches and the year of its introduction, 1906. Very often the name of the manufacturer who introduced the cartridge is added, e.g. 6.5 x 65 RWS or .30 R Blaser.

The special case of the 8 x 57 IS / 8 x 57 IRS
At this time, both the 8 x 57 IS and 8 x 57 IRS are loaded by RWS. For safety reasons, under no circumstances may either calibre be fired in barrels designated 8 x 57 I or 8 x 57 IR! To ensure that this may be avoided, 8 x 57 IS and 8 x 57 IRS loaded by RWS are identified by a black primer seal.

Loads with red or green primer seals	Loads with no primer seal
5.6 x 50 Mag. TMS 4.1 g	5.6 x 50 R Mag. TMS 3.24 g
5.6 x 50 R Mag. TMS 4.1 g	
6.5 x 57 KS 8.2 g	
6.5 x 57 R KS 8.2 g	
7 x 57 R KS 10.5 g	
7 x 57 R ID Classic 11.5 g	
7 x 64 KS 10.5 g	7 x 64 KS 8.0 g
7 x 64 ID Classic 11.5 g	7 x 64 ID Classic 10.5 g
7 x 65 R KS 10.5 g	7 x 65 R KS 8.0 g
7 x 65 R ID Classic 11.5 g	7 x 65 R ID Classic 10.5 g
.30-06 KS 10.7 g (green)	.30-06 KS 9.7 g
.30-06 UNI Classic 11.7 g (green)	.30-06 ID Classic 9.7 g
.30-06 UNI Classic 13.0 g	

NEW

THE PACKAGING

To get the best field use from your rifle, it is necessary to know the cartridge's external ballistics. So that you can have a handy reminder of your cartridge's ballistics in your pocket, RWS include this information on every box. A detachable fold-out attached to the back of the box has an illustration of that bullet and provides other useful information for the shooter.

Our practical new cartridge carriers can, according to your needs, be reduced to an even handier format so that the rounds you carry on the hunt will not rattle in your pocket. To remove a cartridge, merely grasp the case at the shoulder and push it out of the carrier.

❶ Metric ballistic data for correct hold-offs or for use with bullet drop compensating and graduated scope reticules
❷ Stages of bullet deformation or fragmentation illustrating how that bullet works upon impact
❸ Bullet type
❹ Bullet weight in grams and grains (1 gram = 15.43 grains)
❺ Calibre designation
❻ Imperial ballistic data in English
❼ The item number and the lot number (2 numerals and 2 letters) identify the production series of the cartridges packed in that box
❽ **NEW**: Maximum effective range data and game size recommendations

BALLISTIC DATA

Data determination

The ballistic data found on RWS and GECO cartridge boxes are not absolute but median values derived from many measurements taken with firearms of various make. Those data can be heavily influenced by, for example, differing barrel lengths. Firing tests of all cartridges are made and evaluated under identical conditions in our own facilities.
As a rule, these ballistic data are valid for level fire at sea level.

The trajectory

The barrel length is also given along with the cartridge data. This is usually 600 mm for RWS rifle cartridges. Should your barrel be slightly longer or shorter than this, then the velocity will increase or decrease. With high-performance cartridges, this value may vary by as much as 20 m/sec. It is taken as given that the scope sight is mounted with its optical axis 5 cm above the bore axis. Positive values mean a bullet impact above the line of sight, negative values show impact below the line of sight.

The Recommended Zero Range - RZR

The RZR is that point where the bullet's path crosses the line of sight for the second time so that the bullet drops no more than 4 cm below the line of sight to give the maximum point-blank range. In the example below, an RZR of 182 m gives a maximum point-blank range of 209 m so that point of aim is the same up to 209 m. The rifle can still be zeroed at 100 m. In a 7 x 64, for example, setting the point of impact to 4 cm high at 100 m means that no change in point of aim is necessary up to the maximum point-blank range of 209 m.

The RWS sighting-in target is optimal for this use and can be downloaded from our website rws-ammunition.com. RWS is well known for the fact that points of impact hardly change from lot to lot. Still, it is necessary to take a few control shots to be sure that nothing has changed when switching ammunition lot numbers.

How to interpret the tables

Every bullet is slowed down by air resistance. The rate of braking depends upon the shape, mass and velocity of the bullet as well as the air density. The ballistic coefficient (BC) describes the bullet's influence on this resistance and is thereby a measure of how readily the bullet is braked by wind resistance or, in other words, the ability of the projectile to overcome air resistance.
The velocity V is given in metres per second (m/sec) for the distances of 0, 50, 100, 200, 250 and 300 metres. The value V_o is that of the bullet velocity as it leaves the muzzle of the rifle. The kinetic energy of a bullet is based upon its velocity and its weight. Energy values are given in Joules (J) for ranges between 0 and 300 m. The value E_{100} shows the amount of energy delivered to a game animal 100 metres distant from the muzzle. In Germany, for example, roe deer must be taken with a cartridge that has an E_{100} of at least 1000 Joules. All other big game must be taken with a calibre of at least 6.5 mm and which develops an E_{100} of at least 2000 Joules.

You can download the RWS sighting-in-target from our newly designed website rws-ammunition.com

Brilliant look: Gold plated H-Mantel bullets and black ruthenium-plated cases produce not only optimum ballistics but a stunning look.

Personal note: Each individual cartridge is engraved with the name of the person and is thus a unique, individual product.

Ballistic Perfection: The use of the best components, their visual enhancement and the hand loading of the Special Edition guarantee the highest accuracy and reliability for every single cartridge.

SPECIAL EDITION

A very personal masterpiece

This exclusive special series, available in four classic hunting calibres, is a true rarity. Each individual component - from primer to case to powder to bullet - has been carefully selected, tested, refined, and finally loaded by hand with meticulous precision. The careful optimized matching of the components ensures the highest accuracy and performance of each and every cartridge. Even the look of the Special Edition is a masterpiece. The legendary RWS H-Mantel bullets are gold-plated with luxuriant black, ruthenium-plated cartridge cases engraved with the name of the person, making this range of cartridges into a personal masterpiece.

Bullet Item No.	Weight g gr	Barrel length mm	V [1] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * [2]	50m	100m	150m	200m	250m	300m	Ctg/ box
												Trajectory (cm)						
.308 Win.																		
HMK	11.7	600	V [m/sec]	795	754	714	675	638	602	567	⊕	100 m	-0.3	⊕	-4.5	-14.4	-30.3	-53.0	30
231 52 28	180		E [J]	3697	3326	2982	2665	2381	2120	1881	RZR	163 m	1.7	4.0	1.5	-6.3	-20.2	-40.9	
.30-06																		
HMK	11.7	600	V [m/sec]	856	813	771	731	692	654	617	⊕	100 m	-0.6	⊕	-3.5	-11.6	-24.8	-43.7	30
231 52 29	180		E [J]	4287	3867	3477	3126	2801	2502	2227	RZR	176 m	1.4	4.0	2.5	-3.5	-14.7	-31.7	
.300 Win. Mag.																		
HMK	11.7	650	V [m/sec]	955	909	864	821	779	738	699	⊕	100 m	-1.0	⊕	-2.3	-8.2	-18.2	-32.6	30
231 62 30	180		E [J]	5335	4834	4367	3943	3550	3186	2858	RZR	197 m	1.0	4.0	3.7	-0.3	-8.3	-20.8	
8 x 57 JRS																		
HMK	12.1	600	V [m/sec]	785	740	697	656	616	577	540	⊕	100 m	-0.3	⊕	-4.8	-15.3	-32.3	-56.7	30
231 52 42	187		E [J]	3728	3313	2939	2604	2296	2014	1764	RZR	160 m	1.8	4.0	1.3	-7.2	-22.2	-44.6	

1) V = Velocity, E = Energy 2) RZR = Recommended Zero Range

BEST FUNCTION ALSO IN SEMI-AUTOMATIC RIFLES

PERFORMANCE LINE
SHORT RIFLE

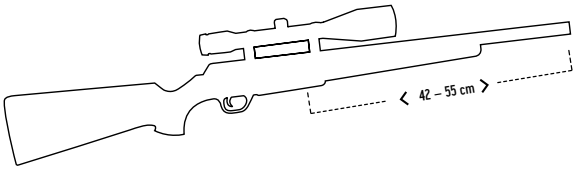
More and more hunters have come to appreciate the advantages of a short and handy barrel. This trend is fueled by the increased use of silencers, especially with the .308 Winchester calibre. Standard ammunition is formulated for use in the most commonly encountered barrel length of 60 cm. Firing standard ammunition out of 42 – 55 cm barrels has several disadvantages: Loss of velocity and energy, reduced effective range, dazzling muzzle flash, increased muzzle blast and accelerated silencer wear. That is why RWS has developed a cartridge tailored specifically for use in short-barreled rifles. This means that shooting a short-barreled rifle no longer means giving up long-barrel performance.

NEW SHORT RIFLE

Full performance from short barrels

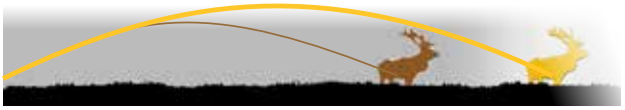
Optimized for short barrels

The new RWS load is specially formulated for 42 to 55 cm barrels with a fast-burning powder, an appropriate bullet weight and a high-performance primer.



Full velocity and energy

Thanks to its special formulation, the new RWS cartridge delivers full velocity and energy – even from short barrels. This means that you need not change your hunting tactics when it comes to a short barrel and that you can expect full game-taking power, even at long ranges.



Reduced muzzle flash

Our fast-burning powder significantly reduces both muzzle flash and report in shorter barrels. Now you can keep sight of the target at the instant the shot is fired, which is especially important when hunting in twilight or darkness.

The best choice when shooting with silencers

Short barrels are the first choice for use with a silencer. The complete combustion of this fast-burning powder within the barrel itself not only assures a significantly higher life expectancy for the silencer but also promotes tighter groups.

	Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value 1)	V 2) E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR 3)		50m	100m	150m	200m	250m	300m	Ctg/box	
														Trajectory (cm)							
	.308 Win.																				
GREEN	**EVO GREEN**	9.0	500	V[m/sec]	900	852	806	761	717	676	636	⊕	100 m	-0.8	⊕	-3.0	-10.2	-22.2	-39.6	20	SHORT RIFLE
NEW	241 17 83	139	0.332	E[J]	3645	3267	2923	2606	2313	2056	1820	RZR	169 m	1.2	4.0	3.0	-2.2	-12.2	-27.6		
GREEN	**HIT**	9.7	500	V[m/sec]	870	830	791	753	716	680	646	⊕	100 m	-0.7	⊕	-3.2	-10.7	-23.1	-40.7	20	SHORT RIFLE
	240 66 15	150	0.386	E[J]	3671	3341	3035	2750	2486	2243	2024	RZR	180 m	1.3	4.0	2.8	-2.7	-13.0	-28.7		
	SPEED TIP PRO	10.7	500	V[m/sec]	830	794	760	726	693	661	630	⊕	100 m	-0.6	⊕	-3.7	-12.0	-25.5	-44.6	20	SHORT RIFLE
	240 66 16	165	0.421	E[J]	3686	3373	3090	2820	2569	2338	2123	RZR	173 m	1.5	4.0	2.3	-4.0	-15.5	-32.5		
	.30-06																				
GREEN	**EVO GREEN**	9.0	500	V[m/sec]	881	835	791	748	706	666	627	⊕	100 m	-0.7	⊕	-3.2	-10.8	-23.3	-41.3	20	SHORT RIFLE
NEW	241 17 85	139	0.338	E[J]	3493	3138	2816	2518	2243	1996	1769	RZR	167 m	1.3	4.0	2.8	-2.7	-13.2	-29.3		
GREEN	**HIT**	10.7	500	V[m/sec]	840	804	769	734	701	668	636	⊕	100 m	-0.6	⊕	-3.6	-11.7	-24.8	-43.4	20	SHORT RIFLE
	240 84 72	165	0.420	E[J]	3775	3458	3164	2882	2629	2387	2164	RZR	173 m	1.3	3.9	2.3	-3.9	-15.0	-31.7		
	SPEED TIP PRO	10.7	500	V[m/sec]	870	832	795	758	723	689	655	⊕	100 m	-0.7	⊕	-3.2	-10.6	-22.7	-40.0	20	SHORT RIFLE
	240 84 73	165	0.405	E[J]	4049	3703	3381	3074	2797	2540	2295	RZR	179 m	1.2	3.9	2.7	-2.8	-13.0	-28.3		
	.300 Win. Mag.																				
GREEN	**HIT**	10.7	500	V[m/sec]	950	911	873	836	800	765	731	⊕	100 m	-1.0	⊕	-2.2	-7.9	-17.5	-31.2	20	SHORT RIFLE
	240 84 74	165	0.420	E[J]	4828	4440	4077	3739	3424	3131	2859	RZR	199 m	0.9	3.9	3.7	-0.1	-7.7	-19.4		
	SPEED TIP PRO	10.7	500	V[m/sec]	914	876	840	805	772	738	705	⊕	100 m	-0.9	⊕	-2.6	-8.9	-19.4	-34.4	20	SHORT RIFLE
	240 86 34	165	0.427	E[J]	4469	4105	3775	3467	3189	2914	2659	RZR	275 m	3.9	9.6	11.9	10.3	4.7	-5.5		
	8 x 57 JS																				
GREEN	**HIT**	10.4	500	V[m/sec]	835	791	748	708	670	632	596	⊕	100 m	-0.5	⊕	-3.9	-12.6	-26.8	-47.2	20	SHORT RIFLE
	240 84 75	160	0.338	E[J]	3615	3244	2901	2599	2328	2071	1842	RZR	169 m	1.4	3.9	2.0	-4.8	-17.1	-35.5		
	SPEED TIP PRO	11.7	500	V[m/sec]	765	728	693	659	627	594	563	⊕	100 m	-0.2	⊕	-4.9	-15.5	-32.3	-56.1	20	SHORT RIFLE
NEW	241 18 67	180	0.393	E[J]	3424	3100	2809	2541	2300	2064	1854	RZR	155 m	1.8	4.0	1.0	-7.6	-22.4	-44.2		
	9.3 x 62																				
GREEN	**HIT**	16.2	500	V[m/sec]	770	734	698	665	633	601	571	⊕	100 m	-0.2	⊕	-4.8	-15.2	-31.7	-55.0	20	SHORT RIFLE
	240 84 76	250	0.395	E[J]	4804	4365	3948	3583	3247	2927	2642	RZR	159 m	1.8	3.9	1.1	-7.3	-21.8	-43.1		

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V [2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * [3]	50m	100m	150m	200m	250m	300m	Ctg/ box
														Trajectory (cm)				
																		
.22 Hornet																		
MJ	3.0	600	V[m/sec]	690	596	511	436	376	332	303	⊕	100 m	1.0	⊕	-10.5	-34.0	-75.0	-137.9	50
211 63 67	46	0.140	E[J]	714	533	392	285	212	165	138	RZR	130 m	3.0	3.9	-4.6	-26.2	-65.1	-126.0	
TMS	3.0	600	V[m/sec]	700	613	532	460	399	351	319	⊕	100 m	0.8	⊕	-9.6	-30.8	-67.7	-124.4	20
211 63 75	46	0.152	E[J]	735	564	425	317	239	185	153	RZR	133 m	2.8	4.0	-3.6	-22.8	-57.7	-112.4	
																		
.222 Rem.																		
TMS	3.24	600	V[m/sec]	1020	929	843	763	687	616	550	⊕	100 m	-1.1	⊕	-2.4	-9.0	-20.9	-39.3	20
211 64 05	50	0.186	E[J]	1685	1398	1151	943	765	615	490	RZR	191 m	0.9	4.0	3.6	-1.0	-10.9	-27.3	
MJ	3.4	600	V[m/sec]	980	890	806	726	652	582	517	⊕	100 m	-0.9	⊕	-2.9	-10.4	-23.7	-44.4	30
241 78 54	52	0.183	E[J]	1633	1347	1104	896	723	576	454	RZR	182 m	1.0	4.0	3.1	-2.4	-13.8	-32.5	
																		
.223 Rem.																		
TMS	3.6	600	V[m/sec]	1000	919	842	770	702	637	575	⊕	100 m	-1.0	⊕	-2.4	-9.0	-20.6	-38.3	20
211 64 72	55	0.207	E[J]	1800	1520	1276	1067	887	730	595	RZR	191 m	1.0	4.0	3.6	-1.0	-10.6	-26.3	
																		
5.6 x 50 Magnum																		
TMS	4.1	600	V[m/sec]	920	854	791	730	673	618	566	⊕	100 m	-0.8	⊕	-3.1	-10.9	-24.0	-43.7	20
211 64 99	63	0.240	E[J]	1735	1495	1283	1092	929	783	657	RZR	179 m	1.2	4.0	2.8	-2.9	-14.1	-31.8	
																		
5.6 x 50 R Magnum																		
TMS	3.24	600	V[m/sec]	1015	924	839	759	683	613	546	⊕	100 m	-1.1	⊕	-2.4	-9.2	-21.2	-39.8	20
211 68 47	50	0.186	E[J]	1669	1383	1140	933	756	609	483	RZR	190 m	0.9	4.0	3.6	-1.2	-11.2	-27.8	
TMS	4.1	600	V[m/sec]	900	835	772	713	656	602	551	⊕	100 m	-0.7	⊕	-3.4	-11.6	-25.6	-46.4	20
211 65 02	63	0.240	E[J]	1661	1429	1222	1042	882	743	622	RZR	175 m	1.3	4.0	2.6	-3.7	-15.7	-34.5	
																		
5.6 x 52 R																		
TMS	4.6	600	V[m/sec]	870	808	749	692	638	587	538	⊕	100 m	-0.6	⊕	-3.8	-12.7	-27.7	-49.8	20
211 68 63	71	0.248	E[J]	1741	1502	1290	1101	936	793	666	RZR	170 m	1.4	4.0	2.2	-4.7	-17.7	-37.8	
																		
5.6 x 57																		
KS	4.8	600	V[m/sec]	1030	964	900	840	782	727	673	⊕	100 m	-1.2	⊕	-1.9	-7.2	-16.6	-30.6	20
211 67 15	74	0.260	E[J]	2546	2230	1944	1693	1468	1268	1087	RZR	207 m	0.8	4.0	4.2	0.9	-6.5	-18.5	
																		
.243 Win.																		
NEW **SPEED TIP**	5.8	600	V[m/sec]	954	902	852	805	759	714	670	⊕	100 m	-1.0	⊕	-2.4	-8.6	-19.0	-34.3	20
240 81 27	90	0.315	E[J]	2653	2372	2116	1889	1679	1486	1309	RZR	193 m	1.0	3.9	3.4	-0.8	-9.3	-22.6	
KS	6.2	600	V[m/sec]	910	856	804	754	706	660	615	⊕	100 m	-0.8	⊕	-3.0	-10.3	-22.5	-40.4	20
211 68 12	96	0.294	E[J]	2567	2271	2004	1762	1545	1350	1172	RZR	183 m	1.2	4.0	3.0	-2.3	-12.5	-28.4	
TMS	6.5	600	V[m/sec]	900	857	816	776	737	699	663	⊕	100 m	-0.8	⊕	-2.9	-9.8	-21.3	-37.8	20
211 68 71	100	0.371	E[J]	2633	2387	2164	1957	1765	1588	1429	RZR	186 m	1.2	4.0	3.2	-1.8	-11.2	-25.7	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

6.5 Creedmoor

	Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V[2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR *[3]	50m	100m	150m Trajectory (cm)	200m	250m	300m	Ctg/ box
	EVO GREEN	6.0	600	V[m/sec]	998	945	893	845	799	753	708	⊕ 100 m	-1.1	⊕	-2.0	-7.3	-16.6	-30.1	20
NEW	241 16 82	93	0.317	E[J]	2988	2679	2392	2142	1915	1701	1504	RZR 185 m	0.9	4.0	4.0	0.7	-6.6	-18.1	
	SPEED TIP PRO	9.1							Ballistic data were unavailable at the time of printing.										20
NEW	241 16 31	140							Once they are available, all of the information about this caliber will be available at rws-ammunition.com.										

6.5 x 55 SE

	EVO GREEN	6.0	600	V[m/sec]	990	936	883	834	788	740	694	⊕ 100 m	-1.1	⊕	-2.1	-7.6	-17.2	-31.2	20
	240 14 04	93	0.309	E[J]	2940	2628	2339	2087	1863	1643	1445	RZR 203 m	0.9	4.0	3.9	0.3	-7.2	-19.2	
	DK	9.1	600	V[m/sec]	820	771	724	679	635	594	553	⊕ 100 m	-0.4	⊕	-4.3	-13.8	-29.5	-52.2	20
	211 69 95	140	0.305	E[J]	3059	2705	2385	2098	1835	1605	1391	RZR 165 m	1.6	4.0	1.7	-5.9	-19.6	-40.2	
NEW	**SPEED TIP PRO**	9.1							Ballistic data were unavailable at the time of printing.										20
	241 16 32	140							Once they are available, all of the information about this caliber will be available at rws-ammunition.com.										
	EVO	10.1	600	V[m/sec]	790	752	714	678	643	609	576	⊕ 100 m	-0.3	⊕	-4.5	-14.3	-30.1	-52.5	20
	231 85 56	156	0.379	E[J]	3152	2856	2574	2321	2088	1873	1675	RZR 163 m	1.7	4.0	1.5	-6.3	-20.0	-40.4	

6.5 x 57

	EVO GREEN	6.0	600	V[m/sec]	950	897	848	801	753	705	659	⊕ 100 m	-1.0	⊕	-2.4	-8.7	-19.3	-34.9	20
	240 14 05	93	0.309	E[J]	2708	2414	2157	1925	1701	1491	1303	RZR 194 m	1.0	4.0	3.6	-0.7	-9.2	-22.8	
	KS	8.2	600	V[m/sec]	840	798	758	718	680	643	607	⊕ 100 m	-0.6	⊕	-3.7	-12.2	-26.0	-45.7	20
	211 70 96	127	0.361	E[J]	2893	2611	2356	2114	1896	1695	1511	RZR 172 m	1.4	4.0	2.3	-4.2	-16.0	-33.7	
	DK	9.1	600	V[m/sec]	800	752	706	661	618	577	538	⊕ 100 m	-0.3	⊕	-4.6	-14.8	-31.5	-55.6	20
	231 43 52	140	0.305	E[J]	2912	2573	2268	1988	1738	1515	1317	RZR 161 m	1.7	4.0	1.4	-6.9	-21.6	-43.7	

6.5 x 57 R

	EVO GREEN	6.0	600	V[m/sec]	920	868	818	771	726	681	638	⊕ 100 m	-0.9	⊕	-2.8	-9.7	-21.3	-38.2	20
	240 14 07	93	0.309	E[J]	2539	2260	2007	1783	1581	1391	1221	RZR 187 m	1.1	4.0	3.2	-1.7	-11.2	-26.1	
	KS	8.2	600	V[m/sec]	860	817	776	736	698	660	624	⊕ 100 m	-0.7	⊕	-3.4	-11.4	-24.4	-43.0	20
	211 71 50	127	0.361	E[J]	3032	2737	2469	2221	1998	1786	1596	RZR 177 m	1.4	4.0	2.6	-3.3	-14.3	-30.9	
	DK	9.1	600	V[m/sec]	760	713	668	625	584	544	506	⊕ 100 m	-0.1	⊕	-5.4	-17.1	-36.1	-63.3	20
	211 71 18	140	0.305	E[J]	2628	2313	2030	1777	1552	1347	1165	RZR 154 m	1.9	4.0	0.6	-9.1	-26.1	-51.3	

6.5 x 65 RWS

	KS	8.2	600	V[m/sec]	900	856	814	773	733	694	657	⊕ 100 m	-0.8	⊕	-2.9	-9.9	-21.4	-38.1	20
	211 69 79	127	0.361	E[J]	3321	3004	2717	2450	2203	1975	1770	RZR 185 m	1.2	4.0	3.1	-1.9	-11.5	-26.2	

6.5 x 65 R RWS

	KS	8.2	600	V[m/sec]	860	817	776	736	698	660	624	⊕ 100 m	-0.7	⊕	-3.4	-11.4	-24.4	-43.0	20
	211 69 87	127	0.361	E[J]	3032	2737	2469	2221	1998	1786	1596	RZR 177 m	1.4	4.0	2.6	-3.3	-14.3	-30.9	

Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V[2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR *[3]	50m	100m	150m	200m	250m	300m	Ctg/ box
														Trajectory (cm)				
																		
6.5 x 68																		
EVO GREEN	6.0	650	V[m/sec]	1110	1050	996	947	897	846	795	⊕	100 m	-1.4	⊕	-1.1	-4.9	-11.7	-22.0	20
231 88 67	93	0.309	E[J]	3696	3308	2976	2690	2414	2147	1896	RZR	235 m	0.6	4.0	4.9	3.1	-1.7	-10.0	
KS	8.2	650	V[m/sec]	950	905	861	818	777	737	698	⊕	100 m	-1.0	⊕	-2.3	-8.3	-18.3	-32.9	20
211 72 15	127	0.361	E[J]	3700	3358	3039	2743	2475	2227	1998	RZR	197 m	1.0	4.0	3.7	-0.3	-8.3	-20.9	
																		
.270 Win.																		
EVO GREEN	6.2	600	V[m/sec]	1080	1018	959	903	849	798	748	⊕	100 m	-1.3	⊕	-1.4	-5.7	-13.5	-25.1	20
231 88 62	96	0.292	E[J]	3616	3213	2851	2528	2234	1974	1734	RZR	223 m	0.7	4.0	4.6	2.3	-3.5	-13.1	
HIT	8.4	600	V[m/sec]	921	879	839	800	763	726	690	⊕	100 m	-0.9	⊕	-2.6	-9.0	-19.6	-34.9	20
231 92 10	130	0.385	E[J]	3567	3249	2960	2691	2448	2216	2002	RZR	192 m	1.1	4.0	3.4	-1.0	-9.6	-22.8	
HMK	8.4	600	V[m/sec]	960	905	852	801	752	705	660	⊕	100 m	-1.0	⊕	-2.4	-8.6	-19.2	-34.7	20
211 72 90	130	0.299	E[J]	3871	3440	3049	2695	2375	2088	1830	RZR	195 m	1.0	4.0	3.7	-0.5	-9.1	-22.6	
SPEED TIP PRO	9.1	600	V[m/sec]	925	890	856	825	795	764	734	⊕	100 m	-1.0	⊕	-2.4	-8.4	-18.3	-32.3	20
240 74 32	140	0.459	E[J]	3893	3604	3334	3097	2876	2656	2451	RZR	197 m	1.1	4.0	3.6	-0.4	-8.2	-20.3	
KS	9.7	600	V[m/sec]	896	850	806	764	722	682	643	⊕	100 m	-0.8	⊕	-3.0	-10.2	-22.1	-39.3	20
211 72 82	150	0.345	E[J]	3894	3504	3151	2831	2528	2256	2005	RZR	184 m	1.2	4.0	3.1	-2.1	-12.0	-27.1	
EVO	10.0	600	V[m/sec]	830	785	742	700	660	621	583	⊕	100 m	-0.5	⊕	-4.0	-12.9	-27.5	-48.5	20
231 59 72	154	0.335	E[J]	3445	3081	2753	2450	2178	1928	1699	RZR	169 m	1.5	4.0	2.1	-4.9	-17.5	-36.5	
																		
.270 WSM																		
EVO GREEN	6.2	650	V[m/sec]	1119	1055	995	937	882	828	777	⊕	100 m	-1.4	⊕	-1.1	-5.0	-12.0	-22.6	20
231 88 63	96	0.292	E[J]	3882	3450	3069	2722	2412	2125	1872	RZR	233 m	0.6	4.0	4.9	3.0	-2.0	-10.6	
HIT	8.4	650	V[m/sec]	940	898	858	818	776	738	702	⊕	100 m	-1.0	⊕	-2.4	-8.4	-18.5	-33.2	20
231 92 06	130	0.385	E[J]	3716	3391	3096	2814	2532	2290	2072	RZR	196 m	1.0	4.0	3.7	-0.3	-8.5	-21.1	
																		
7 x 57																		
ID Classic	10.5	600	V[m/sec]	810	765	721	678	637	598	560	⊕	100 m	-0.4	⊕	-4.3	-14.0	-29.8	-52.4	20
211 85 13	162	0.325	E[J]	3445	3072	2729	2413	2130	1877	1646	RZR	164 m	1.6	4.0	1.7	-6.0	-19.8	-40.4	
																		
7 x 57 R																		
EVO GREEN	8.2	600	V[m/sec]	830	792	755	718	683	649	616	⊕	100 m	-0.5	⊕	-3.8	-12.3	-26.1	-45.7	20
231 85 44	127	0.392	E[J]	2824	2572	2337	2114	1913	1727	1556	RZR	171 m	1.4	4.0	2.2	-4.4	-16.2	-33.8	
KS	10.5	600	V[m/sec]	760	722	686	651	617	584	552	⊕	100 m	-0.1	⊕	-5.1	-15.9	-33.3	-57.8	20
211 85 48	162	0.381	E[J]	3032	2737	2471	2225	1999	1791	1600	RZR	157 m	1.8	4.0	0.9	-8.0	-23.3	-45.8	
ID Classic	11.5	600	V[m/sec]	730	691	653	616	581	547	514	⊕	100 m	0.1	⊕	-5.8	-18.1	-37.7	-65.5	20
211 85 72	177	0.356	E[J]	3064	2746	2452	2182	1941	1720	1519	RZR	151 m	2.1	4.0	0.2	-10.1	-27.7	-53.5	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

7 mm Rem. Mag.

	Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V[2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR *[3]	50m	100m	150m	200m	250m	300m	Ctg/ box
															Trajectory (cm)				
	EVO GREEN	8.2	650	V[m/sec]	1010	966	924	883	843	804	767	⊕ 100 m	-1.2	⊕	-1.7	-6.5	-14.8	-26.9	20
	231 85 45	127	0.392	E[J]	4182	3826	3500	3197	2914	2650	2412	RZR 214 m	0.8	4.0	4.3	1.5	-4.8	-15.0	
	HIT	9.1	650	V[m/sec]	940	900	861	824	787	752	717	⊕ 100 m	-1.0	⊕	-2.3	-8.3	-18.2	-32.4	20
	231 88 48	140	0.409	E[J]	4020	3686	3373	3089	2818	2573	2339	RZR 198 m	1.0	4.0	3.7	-0.2	-8.1	-20.3	
NEW	**SPEED TIP**	9.7	650	V[m/sec]	928	894	861	830	800	769	739	⊕ 100 m	-1.0	⊕	-2.3	-8.2	-18.0	-31.9	20
	240 70 08	150	0.479	E[J]	4177	3876	3595	3341	3104	2868	2649	RZR 198 m	1.0	4.0	3.7	-0.2	-8.0	-19.8	
	SPEED TIP PRO	9.7	650	V[m/sec]	950	916	882	850	819	789	758	⊕ 100 m	-1.0	⊕	-2.1	-7.6	-16.8	-29.9	20
	240 70 07	150	0.479	E[J]	4377	4069	3773	3504	3253	3019	2787	RZR 204 m	1.0	4.0	3.9	0.4	-6.7	-17.8	
	EVO	10.3	650	V[m/sec]	870	831	794	757	721	686	653	⊕ 100 m	-0.7	⊕	-3.2	-10.6	-22.8	-40.2	20
	231 65 30	159	0.399	E[J]	3898	3556	3247	2951	2677	2424	2196	RZR 181 m	1.3	4.0	2.9	-2.5	-12.7	-28.1	
	KS	10.5	650	V[m/sec]	890	849	809	770	732	696	660	⊕ 100 m	-0.8	⊕	-3.0	-10.1	-21.7	-38.5	20
	211 85 05	162	0.381	E[J]	4159	3784	3436	3113	2813	2543	2287	RZR 184 m	1.2	4.0	3.0	-2.1	-11.7	-26.5	
	ID Classic	11.5	650	V[m/sec]	840	798	757	717	678	640	604	⊕ 100 m	-0.6	⊕	-3.7	-12.2	-26.1	-45.9	20
	211 84 91	177	0.356	E[J]	4057	3662	3295	2956	2643	2355	2098	RZR 172 m	1.4	4.0	2.3	-4.2	-16.0	-33.9	

7 x 64

	KS	8.0	600	V[m/sec]	965	908	854	801	751	702	655	⊕ 100 m	-1.0	⊕	-2.4	-8.6	-19.1	-34.6	20
	211 75 68	123	0.290	E[J]	3725	3298	2917	2566	2256	1971	1716	RZR 195 m	1.0	4.0	3.7	-0.5	-9.1	-22.6	
	EVO GREEN	8.2	600	V[m/sec]	950	908	868	828	790	753	716	⊕ 100 m	-1.0	⊕	-2.2	-8.1	-17.8	-31.9	20
	231 83 21	127	0.392	E[J]	3700	3380	3089	2811	2559	2325	2102	RZR 199 m	1.0	4.0	3.8	-0.1	-7.8	-19.9	
	HIT	9.1	600	V[m/sec]	900	861	824	787	752	717	683	⊕ 100 m	-0.8	⊕	-2.8	-9.5	-20.6	-36.4	20
	231 88 46	140	0.409	E[J]	3673	3362	3079	2809	2565	2331	2116	RZR 188 m	1.2	4.0	3.3	-1.5	-10.5	-24.4	
NEW	**SPEED TIP**	9.7	650	V[m/sec]	880	846	812	779	747	716	685	⊕ 100 m	-0.8	⊕	-2.9	-9.9	-21.3	-37.5	20
	240 70 10	150	0.455	E[J]	3756	3471	3198	2943	2706	2486	2276	RZR 183 m	1.2	3.9	2.9	-2.2	-11.6	-25.8	
	SPEED TIP PRO	9.7	600	V[m/sec]	930	896	863	832	802	771	741	⊕ 100 m	-1.0	⊕	-2.3	-8.2	-17.9	-31.7	20
	240 70 06	150	0.479	E[J]	4195	3894	3612	3357	3120	2883	2663	RZR 199 m	1.0	4.0	3.7	-0.1	-7.8	-19.6	
	EVO	10.3	600	V[m/sec]	855	817	779	743	708	673	640	⊕ 100 m	-0.7	⊕	-3.4	-11.2	-23.9	-42.1	20
	231 54 31	159	0.399	E[J]	3765	3438	3125	2843	2582	2333	2109	RZR 177 m	1.3	4.0	2.6	-3.2	-14.0	-30.1	
	KS	10.5	600	V[m/sec]	850	810	771	733	697	661	627	⊕ 100 m	-0.6	⊕	-3.5	-11.6	-24.7	-43.5	20
	211 84 75	162	0.381	E[J]	3793	3445	3121	2821	2550	2294	2064	RZR 175 m	1.4	4.0	2.5	-3.6	-14.7	-31.5	
	ID Classic	10.5	600	V[m/sec]	865	818	772	728	685	644	604	⊕ 100 m	-0.7	⊕	-3.5	-11.6	-24.9	-44.2	20
	211 85 80	162	0.325	E[J]	3928	3513	3129	2782	2463	2177	1915	RZR 175 m	1.3	4.0	2.5	-3.6	-15.0	-32.2	
	HMK	11.2	600	V[m/sec]	845	805	767	729	693	658	624	⊕ 100 m	-0.6	⊕	-3.6	-11.8	-25.1	-44.0	20
	211 75 17	173	0.383	E[J]	3999	3629	3294	2976	2689	2425	2181	RZR 174 m	1.4	4.0	2.4	-3.8	-15.1	-32.1	
	ID Classic	11.5	600	V[m/sec]	820	778	738	698	660	623	588	⊕ 100 m	-0.5	⊕	-4.0	-13.1	-27.8	-48.9	20
	211 85 99	177	0.356	E[J]	3866	3480	3132	2801	2505	2232	1988	RZR 168 m	1.5	4.0	2.0	-5.1	-17.8	-36.9	

7 x 65 R

Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V[2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR *[3]	50m	100m	150m Trajectory (cm)	200m	250m	300m	Ctg/ box
KS	8.0	600	V[m/sec]	925	870	817	766	716	669	624	⊕	100 m	-0.9	⊕	-2.8	-9.8	-21.6	-38.9	20
211 76 30	123	0.290	E[J]	3423	3028	2670	2347	2051	1790	1558	RZR	186 m	1.1	4.0	3.2	-1.8	-11.6	-26.8	
EVO GREEN	8.2	600	V[m/sec]	910	869	830	792	754	718	683	⊕	100 m	-0.9	⊕	-2.7	-9.3	-20.2	-35.9	20
231 83 22	127	0.392	E[J]	3395	3096	2824	2572	2331	2114	1913	RZR	189 m	1.1	4.0	3.3	-1.3	-10.3	-24.0	
HIT	9.1	600	V[m/sec]	850	813	776	741	707	673	640	⊕	100 m	-0.6	⊕	-3.4	-11.3	-24.2	-42.4	20
231 88 47	140	0.409	E[J]	3277	2997	2731	2490	2267	2054	1858	RZR	176 m	1.3	4.0	2.5	-3.4	-14.2	-30.5	
EVO	10.3	600	V[m/sec]	810	770	731	693	657	621	587	⊕	100 m	-0.4	⊕	-4.2	-13.5	-28.4	-49.8	20
231 54 32	159	0.369	E[J]	3379	3053	2752	2473	2223	1986	1775	RZR	166 m	1.6	4.0	1.8	-5.5	-18.5	-37.9	
KS	10.5	600	V[m/sec]	820	781	743	706	670	635	602	⊕	100 m	-0.5	⊕	-4.0	-12.9	-27.2	-47.7	20
211 84 83	162	0.381	E[J]	3530	3202	2898	2617	2357	2117	1903	RZR	169 m	1.5	4.0	2.1	-4.8	-17.2	-35.7	
HMK	11.2	600	V[m/sec]	810	771	734	697	662	628	594	⊕	100 m	-0.4	⊕	-4.1	-13.3	-28.1	-49.1	20
211 75 92	173	0.383	E[J]	3674	3329	3017	2721	2454	2209	1976	RZR	167 m	1.6	4.0	1.9	-5.3	-18.1	-37.1	
ID Classic	11.5	600	V[m/sec]	810	769	728	689	651	615	580	⊕	100 m	-0.4	⊕	-4.2	-13.6	-28.8	-50.5	20
211 86 10	177	0.356	E[J]	3773	3400	3047	2730	2437	2175	1934	RZR	166 m	1.6	4.0	1.8	-5.6	-18.7	-38.4	

.308 Win.

Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V[2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR *[3]	50m	100m	150m Trajectory (cm)	200m	250m	300m	Ctg/ box
EVO GREEN	9.0	500	V[m/sec]	900	852	806	761	717	676	636	⊕	100 m	-0.8	⊕	-3.0	-10.2	-22.2	-39.6	20
NEW 241 17 83	139	0.332	E[J]	3645	3267	2923	2606	2313	2056	1820	RZR	169 m	1.2	4.0	3.0	-2.2	-12.2	-27.6	
EVO GREEN	9.0	600	V[m/sec]	885	836	789	745	702	659	618	⊕	100 m	-0.7	⊕	-3.2	-10.8	-23.4	-41.7	20
240 86 44	139	0.318	E[J]	3525	3145	2801	2498	2218	1954	1719	RZR	177 m	1.2	4.0	2.8	-2.9	-13.5	-29.8	
KS	9.7	600	V[m/sec]	850	799	750	703	657	613	572	⊕	100 m	-0.6	⊕	-3.8	-12.6	-27.0	-48.1	20
211 77 03	150	0.298	E[J]	3504	3096	2728	2397	2093	1822	1587	RZR	171 m	1.4	4.0	2.3	-4.5	-16.9	-36.0	
ID Classic	9.7	600	V[m/sec]	860	810	761	714	669	625	583	⊕	100 m	-0.6	⊕	-3.6	-12.1	-26.0	-46.2	20
211 77 11	150	0.303	E[J]	3587	3182	2809	2473	2171	1895	1648	RZR	173 m	1.4	4.0	2.4	-4.0	-16.0	-34.2	
HIT	9.7	500	V[m/sec]	870	830	791	753	716	680	646	⊕	100 m	-0.7	⊕	-3.2	-10.7	-23.1	-40.7	20
240 66 15	150	0.386	E[J]	3671	3341	3035	2750	2486	2243	2024	RZR	180 m	1.3	4.0	2.8	-2.7	-13.0	-28.7	
HIT	10.7	600	V[m/sec]	820	785	750	716	683	651	620	⊕	100 m	-0.5	⊕	-3.9	-12.5	-26.4	-46.1	20
231 88 45	165	0.420	E[J]	3597	3297	3009	2743	2496	2267	2057	RZR	170 m	1.5	4.0	2.1	-4.5	-16.5	-34.2	
DK	10.7	600	V[m/sec]	800	750	702	656	611	569	528	⊕	100 m	-0.3	⊕	-4.7	-15.1	-32.1	-56.6	20
211 79 08	165	0.293	E[J]	3424	3009	2637	2302	1997	1732	1491	RZR	160 m	1.7	4.0	1.3	-7.1	-22.2	-44.8	
NEW **SPEED TIP**	10.7	600	V[m/sec]	820	785	750	716	683	650	618	⊕	100 m	-0.5	⊕	-3.9	-12.5	-26.4	-46.2	20
231 81 72	165	0.422	E[J]	3597	3297	3009	2743	2496	2260	2043	RZR	170 m	1.5	4.0	2.1	-4.5	-16.5	-34.2	
SPEED TIP PRO	10.7	500	V[m/sec]	830	794	760	726	693	661	630	⊕	100 m	-0.6	⊕	-3.7	-12.0	-25.5	-44.6	20
240 66 16	165	0.421	E[J]	3686	3373	3090	2820	2569	2338	2123	RZR	173 m	1.5	4.0	2.3	-4.0	-15.5	-32.5	
SPEED TIP PRO	10.7	600	V[m/sec]	830	794	760	726	692	659	627	⊕	100 m	-0.6	⊕	-3.7	-12.0	-25.5	-44.7	20
240 12 26	165	0.422	E[J]	3686	3373	3090	2820	2562	2323	2103	RZR	173 m	1.5	4.0	2.4	-4.0	-15.4	-32.6	
HMK	11.7	600	V[m/sec]	760	720	681	644	607	572	539	⊕	100 m	-0.1	⊕	-5.2	-16.2	-34.0	-59.3	20
211 76 65	180	0.356	E[J]	3379	3033	2713	2426	2155	1914	1700	RZR	156 m	1.9	4.0	0.8	-8.3	-24.1	-47.4	
UNI Classic	11.7	600	V[m/sec]	770	729	689	651	614	578	543	⊕	100 m	-0.2	⊕	-5.0	-15.8	-33.1	-57.7	20
211 91 96	180	0.350	E[J]	3468	3109	2777	2479	2205	1954	1725	RZR	158 m	1.8	4.0	1.0	-7.7	-23.0	-45.7	
EVO	11.9	600	V[m/sec]	750	711	674	638	602	569	536	⊕	100 m	-0.1	⊕	-5.3	-16.7	-34.9	-60.6	20
231 54 34	184	0.366	E[J]	3347	3008	2703	2422	2156	1926	1709	RZR	155 m	1.9	4.0	0.7	-8.7	-24.8	-48.6	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

.30-06

	Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V[2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR *[3]	50m	100m	150m	200m	250m	300m	Ctg/ box	
															Trajectory (cm)					
GREEN	**EVO GREEN**	9.0	500	V[m/sec]	881	835	791	748	706	666	627	⊕ 100 m	-0.7	⊕	-3.2	-10.8	-23.3	-41.3	20	SHORT RIFLE
NEW	241 17 85	139	0.338	E[J]	3493	3138	2816	2518	2243	1996	1769	RZR 167 m	1.3	4.0	2.8	-2.7	-13.2	-29.3		
GREEN	**EVO GREEN**	9.0	600	V[m/sec]	875	826	780	736	693	651	610	⊕ 100 m	-0.7	⊕	-3.3	-11.2	-24.2	-43.0	20	
	240 86 42	139	0.318	E[J]	3445	3070	2738	2438	2161	1907	1674	RZR 175 m	1.3	4.0	2.7	-3.2	-14.2	-31.0		
	KS	9.7	600	V[m/sec]	900	847	796	747	700	655	611	⊕ 100 m	-0.8	⊕	-3.1	-10.6	-23.1	-41.3	20	
	211 77 70	150	0.298	E[J]	3929	3479	3073	2706	2377	2081	1811	RZR 181 m	1.2	4.0	2.9	-2.6	-13.1	-29.3		
	ID Classic	9.7	600	V[m/sec]	915	862	812	763	716	671	627	⊕ 100 m	-0.8	⊕	-2.9	-10.0	-21.9	-39.2	20	
	211 77 97	150	0.303	E[J]	4061	3604	3198	2824	2486	2184	1907	RZR 185 m	1.2	4.0	3.2	-1.9	-11.8	-27.2		
GREEN	**HIT**	10.7	500	V[m/sec]	840	804	769	734	701	668	636	⊕ 100 m	-0.6	⊕	-3.6	-11.7	-24.8	-43.4	20	SHORT RIFLE
	240 84 72	165	0.420	E[J]	3774	3458	3164	2882	2629	2387	2164	RZR 173 m	1.3	3.9	2.3	-3.9	-15.0	-31.7		
GREEN	**HIT**	10.7	600	V[m/sec]	840	804	769	734	701	668	636	⊕ 100 m	-0.6	⊕	-3.6	-11.7	-24.8	-43.4	20	
	231 88 43	165	0.420	E[J]	3775	3458	3164	2882	2629	2387	2164	RZR 175 m	1.4	4.0	2.5	-3.6	-14.7	-31.3		
	KS	10.7	600	V[m/sec]	860	813	769	725	683	642	603	⊕ 100 m	-0.6	⊕	-3.5	-11.7	-25.2	-44.6	20	
	211 78 00	165	0.329	E[J]	3957	3536	3164	2812	2496	2205	1945	RZR 175 m	1.4	4.0	2.5	-3.6	-15.1	-32.5		
	DK	10.7	600	V[m/sec]	855	803	753	705	658	614	571	⊕ 100 m	-0.6	⊕	-3.7	-12.4	-26.8	-47.7	20	
	211 78 51	165	0.293	E[J]	3911	3450	3033	2659	2316	2017	1744	RZR 171 m	1.4	4.0	2.2	-4.4	-16.8	-35.7		
NEW	**SPEED TIP**	10.7	600	V[m/sec]	865	828	793	758	724	691	659	⊕ 100 m	-0.7	⊕	-3.2	-10.7	-22.8	-40.1	20	
	231 81 64	165	0.422	E[J]	4003	3668	3364	3074	2804	2555	2323	RZR 180 m	1.3	4.0	2.8	-2.7	-12.9	-28.2		
	SPEED TIP PRO	10.7	500	V[m/sec]	870	832	795	758	723	689	655	⊕ 100 m	-0.7	⊕	-3.2	-10.6	-22.7	-40.0	20	SHORT RIFLE
	240 84 73	165	0.405	E[J]	4049	3703	3381	3074	2797	2540	2295	RZR 179 m	1.2	3.9	2.7	-2.8	-13.0	-28.3		
	SPEED TIP PRO	10.7	600	V[m/sec]	870	833	798	763	730	697	665	⊕ 100 m	-0.7	⊕	-3.1	-10.5	-22.4	-39.4	20	
	240 12 06	165	0.422	E[J]	4049	3712	3407	3115	2851	2599	2366	RZR 182 m	1.3	4.0	2.9	-2.4	-12.3	-27.3		
	HMK	11.7	600	V[m/sec]	810	769	728	689	651	615	580	⊕ 100 m	-0.4	⊕	-4.2	-13.6	-28.8	-50.5	20	
	211 77 38	180	0.356	E[J]	3838	3459	3100	2777	2479	2213	1968	RZR 166 m	1.6	4.0	1.8	-5.6	-18.7	-38.4		
	UNI Classic	11.7	600	V[m/sec]	820	778	736	696	658	620	584	⊕ 100 m	-0.5	⊕	-4.1	-13.2	-28.0	-49.2	20	
	211 92 18	180	0.350	E[J]	3934	3541	3169	2834	2533	2249	1995	RZR 167 m	1.5	4.0	1.9	-5.3	-18.1	-37.3		
	EVO	11.9	600	V[m/sec]	810	770	730	692	655	620	585	⊕ 100 m	-0.4	⊕	-4.2	-13.5	-28.5	-50.0	20	
	231 54 35	184	0.366	E[J]	3904	3528	3171	2849	2553	2287	2036	RZR 166 m	1.6	4.0	1.8	-5.5	-18.6	-38.0		
	UNI Classic	13.0	600	V[m/sec]	770	732	695	660	625	592	560	⊕ 100 m	-0.2	⊕	-4.9	-15.4	-32.2	-56.0	20	
	231 47 03	200	0.380	E[J]	3854	3483	3140	2831	2539	2278	2038	RZR 159 m	1.8	4.0	1.1	-7.4	-22.2	-44.0		

.30 R Blaser

GREEN	**EVO GREEN**	9.0	600	V[m/sec]	933	882	834	789	745	701	658	⊕ 100 m	-0.9	⊕	-2.6	-9.2	-20.1	-36.1	20	
	240 86 46	139	0.319	E[J]	3917	3501	3130	2801	2498	2211	1948	RZR 190 m	1.1	4.0	3.4	-1.1	-10.0	-24.0		
	DK	10.7	600	V[m/sec]	870	817	767	718	671	626	583	⊕ 100 m	-0.7	⊕	-3.5	-11.8	-25.6	-45.6	20	
	211 78 94	165	0.293	E[J]	4049	3571	3147	2758	2409	2097	1818	RZR 174 m	1.3	4.0	2.5	-3.8	-15.6	-33.7		
	UNI Classic	11.7	600	V[m/sec]	860	816	774	733	693	654	617	⊕ 100 m	-0.7	⊕	-3.4	-11.5	-24.6	-43.5	20	
	211 78 35	180	0.350	E[J]	4327	3895	3505	3143	2809	2502	2227	RZR 176 m	1.4	4.0	2.6	-3.4	-14.6	-31.4		
	EVO	11.9	600	V[m/sec]	840	799	759	720	682	645	610	⊕ 100 m	-0.6	⊕	-3.7	-12.1	-25.8	-45.5	20	
	231 61 40	184	0.366	E[J]	4198	3798	3428	3084	2767	2475	2214	RZR 172 m	1.4	4.0	2.3	-4.2	-15.9	-33.5		

	Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V[2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR *[3]		50m	100m	150m Trajectory (cm)	200m	250m	300m	Ctg/ box	
																					
	.300 Win. Mag.																				
	EVO GREEN	9.0	650	V[m/sec]	1014	961	911	865	819	773	729	⊕	100 m	-1.2	⊕	-1.8	-6.8	-15.6	-28.4	20	
	240 86 43	139	0.326	E[J]	4627	4156	3735	3367	3018	2689	2391	RZR	208 m	0.8	3.8	4.0	0.8	-5.9	-16.9		
	HIT	10.7	500	V[m/sec]	950	911	873	836	800	765	731	⊕	100 m	-1.0	⊕	-2.2	-7.9	-17.5	-31.2	20	SHORT RIFLE
	240 84 74	165	0.420	E[J]	4828	4440	4077	3739	3424	3131	2859	RZR	199 m	0.9	3.9	3.7	-0.1	-7.7	-19.4		
	HIT	10.7	650	V[m/sec]	950	911	873	837	801	766	733	⊕	100 m	-1.0	⊕	-2.2	-7.9	-17.4	-31.2	20	
	231 88 44	165	0.420	E[J]	4828	4440	4077	3748	3433	3139	2874	RZR	201 m	1.0	4.0	3.8	0.1	-7.4	-19.1		
	KS	10.7	650	V[m/sec]	920	871	824	779	735	693	652	⊕	100 m	-0.9	⊕	-2.7	-9.5	-20.9	-37.3	20	
	211 76 49	165	0.329	E[J]	4528	4059	3633	3247	2890	2569	2274	RZR	188 m	1.1	4.0	3.3	-1.5	-10.8	-25.3		
	DK	10.7	650	V[m/sec]	940	885	832	780	731	684	638	⊕	100 m	-0.9	⊕	-2.6	-9.3	-20.5	-37.1	20	
	211 78 78	165	0.293	E[J]	4727	4190	3703	3255	2859	2503	2178	RZR	189 m	1.1	4.0	3.4	-1.3	-10.6	-25.1		
NEW	**SPEED TIP**	10.7	650	V[m/sec]	970	931	892	855	819	783	749	⊕	100 m	-1.1	⊕	-2.0	-7.4	-16.4	-29.4	20	
	231 81 73	165	0.422	E[J]	5034	4637	4257	3911	3589	3280	3001	RZR	206 m	0.9	4.0	4.0	0.7	-6.3	-17.3		
	SPEED TIP PRO	10.7	500	V[m/sec]	914	876	840	805	772	738	705	⊕	100 m	-0.9	⊕	-2.6	-8.9	-19.4	-34.4	20	SHORT RIFLE
	240 86 34	165	0.427	E[J]	4469	4105	3775	3467	3189	2914	2659	RZR	275 m	3.9	9.6	11.9	10.3	4.7	-5.5		
	SPEED TIP PRO	10.7	650	V[m/sec]	980	940	902	864	830	796	762	⊕	100 m	-1.1	⊕	-1.9	-7.1	-15.9	-28.5	20	
	240 12 20	165	0.422	E[J]	5138	4727	4353	3994	3686	3390	3106	RZR	209 m	0.9	4.0	4.1	0.9	-5.8	-16.4		
	UNI Classic	11.7	650	V[m/sec]	910	865	821	778	737	697	658	⊕	100 m	-0.9	⊕	-2.8	-9.6	-21.0	-37.4	20	
	211 76 57	180	0.350	E[J]	4844	4377	3943	3541	3178	2842	2533	RZR	187 m	1.1	4.0	3.2	-1.6	-11.0	-25.4		
	EVO	11.9	650	V[m/sec]	900	857	815	774	735	697	660	⊕	100 m	-0.8	⊕	-2.9	-9.8	-21.4	-37.9	20	
	231 54 33	184	0.366	E[J]	4820	4370	3952	3565	3214	2891	2592	RZR	186 m	1.2	4.0	3.2	-1.8	-11.3	-25.8		
																					
	.300 WSM																				
	EVO	11.9	600	V[m/sec]	880	837	796	756	717	680	643	⊕	100 m	-0.7	⊕	-3.1	-10.5	-22.8	-40.3	20	
	231 57 41	184	0.366	E[J]	4608	4168	3770	3401	3059	2751	2460	RZR	181 m	1.2	4.0	2.9	-2.6	-12.8	-28.3		
																					
	8 x 57 JS																				
	EVO GREEN	9.0	600	V[m/sec]	920	871	824	778	734	691	650	⊕	100 m	-0.9	⊕	-2.7	-9.5	-20.9	-37.4	20	
	231 83 27	139	0.327	E[J]	3809	3414	3055	2724	2424	2149	1901	RZR	188 m	1.1	4.0	3.3	-1.5	-10.8	-25.3		
	HIT	10.4	500	V[m/sec]	835	791	748	708	670	632	596	⊕	100 m	-0.5	⊕	-3.9	-12.6	-26.8	-47.2	20	SHORT RIFLE
	240 84 75	160	0.338	E[J]	3615	3244	2901	2599	2328	2071	1842	RZR	169 m	1.4	3.9	2.0	-4.8	-17.1	-35.5		
	HIT	10.4	600	V[m/sec]	830	786	744	704	666	628	592	⊕	100 m	-0.5	⊕	-3.9	-12.8	-27.2	-47.9	20	
	231 92 08	160	0.338	E[J]	3572	3203	2870	2570	2300	2045	1817	RZR	170 m	1.5	4.0	2.1	-4.7	-17.1	-35.7		
NEW	**SPEED TIP PRO**	11.7	500	V[m/sec]	765	728	693	659	627	594	563	⊕	100 m	-0.2	⊕	-4.9	-15.5	-32.3	-56.1	20	SHORT RIFLE
	241 18 67	180	0.393	E[J]	3424	3100	2809	2541	2300	2064	1854	RZR	155 m	1.8	4.0	1.0	-7.6	-22.4	-44.2		
NEW	**SPEED TIP PRO**	11.7	600	V[m/sec]	770	733	698	664	630	598	567	⊕	100 m	-0.2	⊕	-4.8	-15.2	-31.8	-55.3	20	
	241 00 16	180	0.394	E[J]	3458	3134	2842	2572	2315	2086	1875	RZR	153 m	1.8	4.0	1.2	-7.2	-21.8	-43.2		
	HMK	12.1	600	V[m/sec]	790	745	702	661	620	582	545	⊕	100 m	-0.3	⊕	-4.7	-15.0	-31.7	-55.7	20	
	211 79 16	187	0.326	E[J]	3776	3358	2981	2643	2326	2049	1797	RZR	160 m	1.7	4.0	1.2	-7.1	-21.9	-43.9		
	ID Classic	12.8	600	V[m/sec]	775	735	696	658	622	587	553	⊕	100 m	-0.2	⊕	-4.8	-15.4	-32.2	-56.2	20	
	211 92 26	198	0.360	E[J]	3844	3457	3100	2771	2476	2205	1957	RZR	159 m	1.8	4.0	1.1	-7.4	-22.3	-44.3		
	EVO	13.0	600	V[m/sec]	745	705	666	628	592	557	523	⊕	100 m	0.0	⊕	-5.5	-17.3	-36.0	-62.7	20	
	231 62 01	200	0.350	E[J]	3608	3231	2883	2563	2278	2017	1778	RZR	153 m	2.0	4.0	0.5	-9.3	-26.1	-50.8		

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

8 x 57 JRS

	Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V [2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * [3]	50m	100m	150m Trajectory (cm)	200m	250m	300m	Ctg/ box
	EVO GREEN	9.0	600	V[m/sec]	865	818	773	729	686	645	606	⊕ 100 m	-0.7	⊕	-3.4	-11.5	-24.8	-44.0	20
	231 83 26	139	0.327	E[J]	3367	3011	2689	2391	2118	1872	1653	RZR 176 m	1.4	4.0	2.6	-3.4	-14.7	-31.9	
	HIT	10.4	600	V[m/sec]	805	762	719	677	636	597	560	⊕ 100 m	-0.4	⊕	-4.4	-14.1	-29.9	-52.7	20
	231 92 07	160	0.338	E[J]	3360	3011	2680	2376	2097	1848	1626	RZR 164 m	1.6	4.0	1.7	-6.0	-19.8	-40.6	
NEW	**SPEED TIP PRO**	11.7	600	V[m/sec]	745	709	674	641	608	576	545	⊕ 100 m	-0.1	⊕	-5.3	-16.7	-34.6	-60.0	20
	241 00 15	180	0.394	E[J]	3237	2932	2650	2396	2156	1935	1732	RZR 149 m	1.9	4.0	0.7	-8.7	-24.6	-48.0	
	ID Classic	12.8	600	V[m/sec]	750	711	673	636	600	566	533	⊕ 100 m	-0.1	⊕	-5.4	-16.8	-35.1	-61.0	20
	211 92 34	198	0.360	E[J]	3600	3235	2899	2589	2304	2050	1818	RZR 154 m	1.9	4.0	0.6	-8.9	-25.2	-49.1	
	EVO	13.0	600	V[m/sec]	695	656	619	583	548	515	483	⊕ 100 m	0.4	⊕	-6.8	-20.8	-42.9	-74.4	20
	231 62 00	200	0.350	E[J]	3140	2797	2491	2209	1952	1724	1516	RZR 145 m	2.4	4.0	-0.8	-12.8	-32.9	-62.4	

8 x 68 S

	Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V [2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * [3]	50m	100m	150m Trajectory (cm)	200m	250m	300m	Ctg/ box
	EVO GREEN	9.0	650	V[m/sec]	1019	966	916	869	824	780	738	⊕ 100 m	-1.2	⊕	-1.7	-6.7	-15.3	-28.0	20
	231 85 47	139	0.327	E[J]	4673	4199	3776	3398	3055	2738	2451	RZR 213 m	0.8	4.0	4.3	1.3	-5.2	-15.9	
	HIT	10.4	650	V[m/sec]	970	921	873	828	785	742	700	⊕ 100 m	-1.1	⊕	-2.2	-7.9	-17.6	-31.8	20
	231 92 09	160	0.338	E[J]	4879	4398	3952	3555	3195	2855	2541	RZR 201 m	1.0	4.0	3.9	0.1	-7.6	-19.7	
	KS	11.7	650	V[m/sec]	950	897	847	798	751	705	661	⊕ 100 m	-1.0	⊕	-2.4	-8.8	-19.4	-35.0	20
	211 81 49	180	0.310	E[J]	5280	4707	4197	3725	3299	2908	2556	RZR 193 m	1.0	4.0	3.5	-0.8	-9.4	-23.1	
NEW	**SPEED TIP PRO**	11.7	600	V[m/sec]	930	889	849	812	775	738	703	⊕ 100 m	-0.9	⊕	-2.5	-8.6	-18.9	-33.7	20
	241 00 17	180	0.394	E[J]	5045	4610	4204	3846	3503	3177	2882	RZR 181 m	1.1	4.0	3.6	-0.6	-8.8	-21.6	
	HMK	12.1	650	V[m/sec]	945	895	847	800	755	712	670	⊕ 100 m	-1.0	⊕	-2.5	-8.8	-19.4	-34.8	20
	211 81 14	187	0.326	E[J]	5403	4846	4340	3872	3449	3067	2716	RZR 193 m	1.0	4.0	3.5	-0.8	-9.4	-22.9	
	EVO	13.0	650	V[m/sec]	895	850	807	765	724	684	646	⊕ 100 m	-0.8	⊕	-3.0	-10.1	-22.0	-39.1	20
	231 65 22	200	0.350	E[J]	5207	4696	4233	3804	3407	3041	2713	RZR 184 m	1.2	4.0	3.1	-2.1	-11.9	-27.0	

.338 Lapua Magnum

	Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V [2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * [3]	50m	100m	150m Trajectory (cm)	200m	250m	300m	Ctg/ box
	SPEED TIP PRO	16.2	650	V[m/sec]	875	847	821	795	769	743	718	⊕ 100 m	-0.8	⊕	-2.8	-9.6	-20.5	-35.8	20
	240 38 63	250	0.566	E[J]	6202	5811	5460	5119	4790	4472	4176	RZR 187 m	1.2	4.0	3.1	-1.6	-10.5	-23.8	

For more centrefire rifle cartridges, please see our listings in the Norma and GECO sections of this catalogue.

	Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V[2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR *[3]	50m	100m	150m Trajectory (cm)	200m	250m	300m	Ctg/ box
																			
	9.3 x 62																		
GREEN	**EVO GREEN**	11.9	600	V[m/sec]	900	849	801	754	708	665	623	⊕	100 m	-0.8	⊕	-3.0	-10.4	-22.7	-40.5	20
	231 83 28	184	0.312	E[J]	4820	4289	3818	3383	2983	2631	2309	RZR	182 m	1.2	4.0	3.0	-2.4	-12.7	-28.5	
	DK	14.6	600	V[m/sec]	805	750	697	646	598	552	508	⊕	100 m	-0.3	⊕	-4.7	-15.4	-32.9	-58.6	20
	211 81 65	225	0.266	E[J]	4731	4106	3546	3046	2611	2224	1884	RZR	160 m	1.7	4.0	1.3	-7.3	-22.8	-46.5	
	KS	16.0	600	V[m/sec]	750	706	663	622	583	545	509	⊕	100 m	0.0	⊕	-5.6	-17.5	-36.6	-64.1	20
	211 81 81	247	0.320	E[J]	4500	3987	3517	3095	2719	2376	2073	RZR	153 m	2.0	4.0	0.5	-9.5	-26.6	-52.0	
GREEN	**HIT**	16.2	500	V[m/sec]	770	734	698	665	633	601	571	⊕	100 m	-0.2	⊕	-4.8	-15.2	-31.7	-55.0	20
	240 84 76	250	0.395	E[J]	4804	4365	3948	3583	3247	2927	2642	RZR	159 m	1.8	3.9	1.1	-7.3	-21.8	-43.1	
GREEN	**HIT**	16.2	600	V[m/sec]	765	729	693	660	628	597	566	⊕	100 m	-0.2	⊕	-4.9	-15.5	-32.3	-55.9	20
	231 94 68	250	0.395	E[J]	4742	4306	3891	3529	3195	2888	2596	RZR	159 m	1.8	4.0	1.1	-7.4	-22.2	-43.8	
NEW	**SPEED TIP**	16.2	600	V[m/sec]	777	745	713	683	654	625	597	⊕	100 m	-0.3	⊕	-4.5	-14.3	-29.9	-51.7	20
	240 70 09	250	0.447	E[J]	4890	4496	4118	3779	3464	3164	2887	RZR	163 m	1.7	4.0	1.5	-6.3	-19.8	-39.6	
NEW	**SPEED TIP PRO**	16.7	600	V[m/sec]	776	745	716	687	659	631	604	⊕	100 m	-0.3	⊕	-4.5	-14.2	-29.5	-51.1	20
	241 00 18	258	0.474	E[J]	5028	4634	4281	3941	3626	3325	3046	RZR	161 m	1.7	4.0	1.5	-6.1	-19.5	-39.0	
	EVO	18.8	600	V[m/sec]	690	656	624	592	561	531	503	⊕	100 m	0.4	⊕	-6.7	-20.3	-41.8	-72.0	20
	231 54 36	291	0.400	E[J]	4475	4045	3660	3294	2958	2650	2378	RZR	145 m	2.3	3.9	-0.7	-12.4	-31.9	-60.2	
	UNI Classic	19.0	600	V[m/sec]	690	661	633	605	578	552	527	⊕	100 m	0.3	⊕	-6.4	-19.6	-40.1	-68.7	20
	211 92 42	293	0.465	E[J]	4523	4151	3807	3477	3174	2895	2638	RZR	147 m	2.3	4.0	-0.4	-11.6	-30.1	-56.6	
																			
	9.3 x 64																		
GREEN	**EVO GREEN**	11.9	650	V[m/sec]	970	917	866	816	769	723	679	⊕	100 m	-1.0	⊕	-2.2	-8.2	-18.2	-33.0	20
	240 11 28	184	0.312	E[J]	5598	5003	4462	3962	3519	3110	2743	RZR	198 m	1.0	4.0	3.8	-0.2	-8.2	-21.0	
	UNI Classic	19.0	650	V[m/sec]	765	734	704	674	646	618	591	⊕	100 m	-0.2	⊕	-4.7	-14.9	-30.9	-53.3	20
	211 92 50	293	0.465	E[J]	5560	5118	4708	4316	3965	3628	3318	RZR	160 m	1.8	4.0	1.2	-7.0	-21.0	-41.5	

SHORT RIFLE

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

9.3 x 74 R

Bullet Item No.	Weight g gr	Barrel length/ mm BC-Value[1]	V[2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR *[3]	50m	100m	150m Trajectory (cm)	200m	250m	300m	Ctg/ box
EVO GREEN	11.9	600	V[m/sec]	885	835	787	740	695	652	611	⊕	100 m	-0.7	⊕	-3.2	-10.9	-23.8	-42.4	20
231 83 29	184	0.312	E[J]	4660	4148	3685	3258	2874	2529	2221	RZR	179 m	1.3	4.0	2.8	-2.9	-13.7	-30.3	
KS	16.0	600	V[m/sec]	740	696	654	613	574	537	501	⊕	100 m	0.0	⊕	-5.8	-18.1	-37.9	-66.2	20
211 82 97	247	0.320	E[J]	4381	3875	3422	3006	2636	2307	2008	RZR	151 m	2.0	4.0	0.2	-10.2	-28.0	-54.3	
HIT	16.2	600	V[m/sec]	710	675	642	609	576	545	515	⊕	100 m	0.2	⊕	-6.1	-18.9	-39.1	-67.6	20
231 94 67	250	0.395	E[J]	4084	3692	3340	3005	2688	2407	2149	RZR	149 m	2.2	4.0	-0.1	-10.9	-29.0	-55.5	
TMR	18.5	600	V[m/sec]	680	637	596	556	518	482	449	⊕	100 m	0.5	⊕	-7.4	-22.9	-47.4	-82.7	20
211 82 70	285	0.309	E[J]	4277	3753	3286	2860	2482	2149	1865	RZR	141 m	2.5	4.0	-1.5	-14.9	-37.5	-70.7	
EVO	18.8	600	V[m/sec]	665	632	600	569	539	510	483	⊕	100 m	0.6	⊕	-7.4	-22.4	-45.8	-78.7	20
231 54 37	291	0.400	E[J]	4157	3755	3384	3043	2731	2445	2193	RZR	141 m	2.5	3.9	-1.5	-14.5	-36.0	-66.9	
UNI Classic	19.0	600	V[m/sec]	675	646	618	591	565	539	514	⊕	100 m	0.4	⊕	-6.9	-20.8	-42.3	-72.4	20
211 92 77	293	0.465	E[J]	4328	3965	3628	3318	3033	2760	2510	RZR	144 m	2.4	4.0	-0.9	-12.9	-32.5	-60.5	

.375 H&H Mag.

UNI Classic	19.5	650	V[m/sec]	780	737	695	654	615	578	542	⊕	100 m	-0.2	⊕	-4.8	-15.5	-32.6	-57.0	20
211 83 78	301	0.334	E[J]	5932	5296	4709	4170	3688	3257	2864	RZR	159 m	1.8	4.0	1.2	-7.4	-22.5	-45.0	

10.3 x 68 Mag.

HIT	13.0	650	V[m/sec]	905	846	790	738	688	639	592	⊕	100 m	-0.8	⊕	-3.2	-10.8	-23.7	-42.5	20
240 42 55	200	0.268	E[J]	5324	4652	4057	3540	3077	2654	2278	RZR	180 m	1.2	4.0	2.8	-2.8	-13.7	-30.6	
EVO GREEN	13.5	650	V[m/sec]	900	842	788	736	685	636	588	⊕	100 m	-0.8	⊕	-3.2	-10.9	-23.9	-42.9	20
240 29 19	208	0.271	E[J]	5468	4786	4191	3656	3167	2730	2334	RZR	179 m	1.2	4.0	2.8	-2.9	-13.9	-31.0	
SPEED TIP PRO	18.5	650	V[m/sec]	800	762	725	689	653	619	585	⊕	100 m	-0.4	⊕	-4.3	-13.7	-29.0	-50.6	20
240 29 20	285	0.379	E[J]	5920	5371	4862	4391	3944	3544	3166	RZR	165 m	1.6	4.0	1.7	-5.7	-19.0	-38.6	
TM bonded	25.9	650	V[m/sec]	710	664	620	576	534	495	461	⊕	100 m	0.3	⊕	-6.7	-20.8	-43.6	-76.5	20
240 52 87	400	0.298	E[J]	6528	5710	4978	4296	3693	3173	2752	RZR	145 m	2.3	4.0	-0.7	-12.8	-33.6	-64.5	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SmartMagnum™

10.3 x 68 Mag.

The new dimension

The 10.3x68 Magnum sets new standards for comfortable shooting in the magnum class and expands its range of use into a completely new dimension. Independent of impact velocity, the increased bullet cross-section assures extraordinary performance on game as well as up to 81% more stopping power than common medium calibers, yet with about the same amount of recoil.
No other caliber offers the possibility of bullet weights ranging from 11 to 26 grams, thereby covering almost any hunting application. Especially when drive-hunting tough boar, the large sectional area delivers instantaneous stopping power. Also in lead-free!

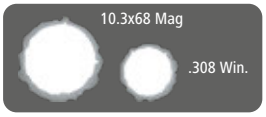
HIT 13.0 g
Convincing penetration - lead-free

EVOLUTION GREEN 13.5 g
Satisfying shocking power - lead free

SPEED TIP PRO 18.5 g
Highest knock-down power at all distances

SOFTPOINT BONDED 25.9 g
For great energy delivery

Cross-sectional area plus+
This truth is no secret:
A large cross-sectional area
puts the brakes on game!



The large cross-sectional area of the 10.3x68 Mag. bullet delivers up to 81% more stopping power compared to ordinary medium bores with similar recoil. The large impact surface emulates the well-known rifled slug effect and reduces wounded game flight distances to a minimum – even in the lead-free version. The efficacy of this calibre is further enhanced with modern bullet designs and can be adapted to game of any weight.

One calibre for everything
Whether after Austrian marmot or African Cape buffalo, the 10.3x68 Mag. is one calibre for everything. Bullet weights from 11 to 26 grams are practicable in no other calibre and they cover almost every hunting situation, whether in your home hunting grounds or on foreign hunting trips.

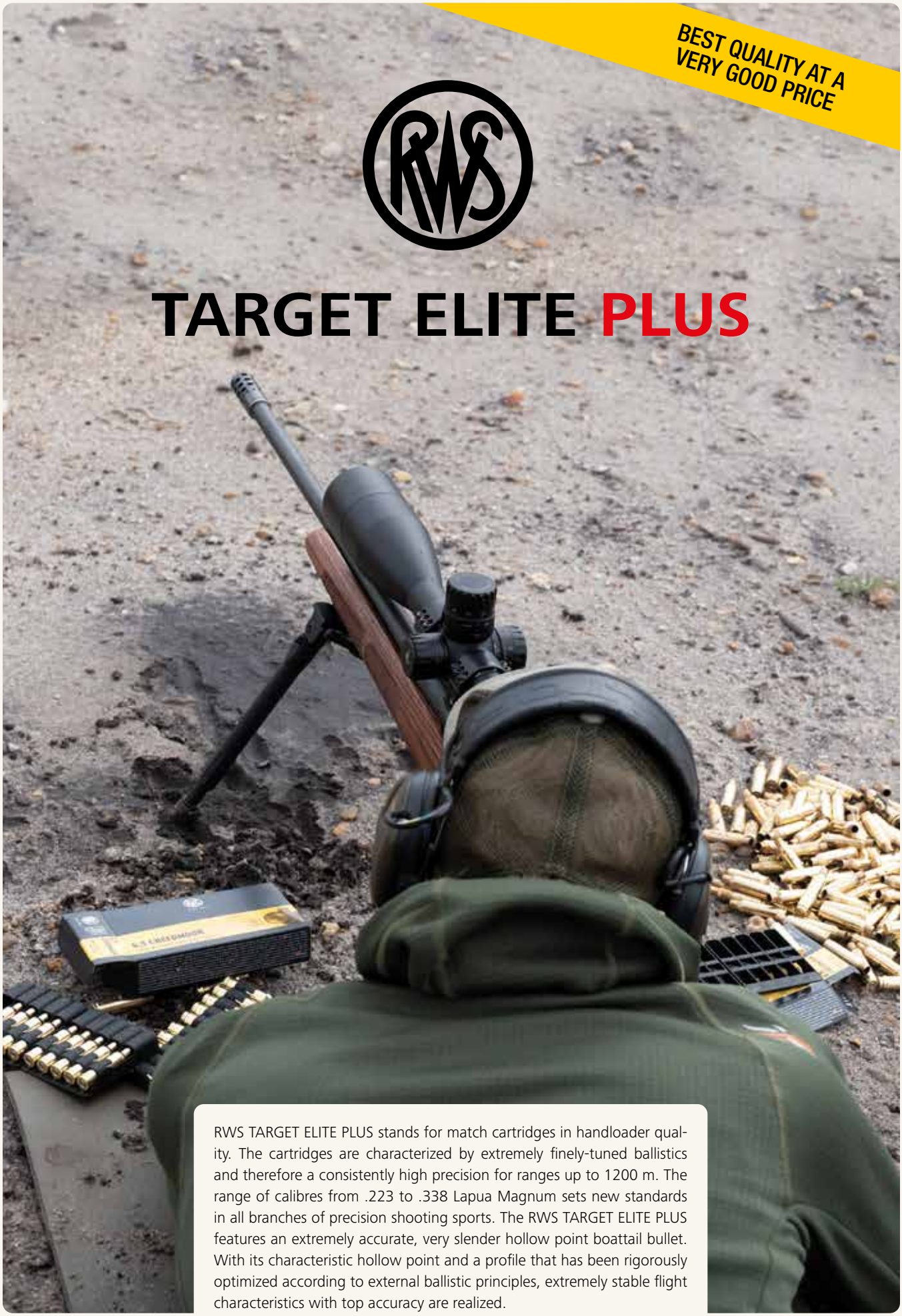
The SmartMagnum™ effect
The 10.3x68 Mag. redefines comfortable shooting in the magnum class and expands the useful range of magnum cartridges into an entirely new dimension. Regardless of impact velocity, the enlarged cross-sectional area assures an extraordinarily great shock effect in the body of the game animal. The variety of bullet weights supports the versatility of this calibre.

Uncompromising with strong partners
Even the most effective calibre with the best bullet only works when it hits where it is supposed to. For that, it needs an efficient weapons system. The Blaser R8 and the Sauer 404 are now available as two reliable solutions for maximum hunting success with the 10.3x68 Mag.

Blaser SAUER

all4hunters.com
BE A HUNTER
ARMS AMMUNITION OPTICS PASSION

all4shooters.com
BE A SHOOTER
ARMS AMMUNITION OPTICS PASSION



RWS TARGET ELITE PLUS stands for match cartridges in handloader quality. The cartridges are characterized by extremely finely-tuned ballistics and therefore a consistently high precision for ranges up to 1200 m. The range of calibres from .223 to .338 Lapua Magnum sets new standards in all branches of precision shooting sports. The RWS TARGET ELITE PLUS features an extremely accurate, very slender hollow point boattail bullet. With its characteristic hollow point and a profile that has been rigorously optimized according to external ballistic principles, extremely stable flight characteristics with top accuracy are realized.

TARGET ELITE PLUS

RWS Match Grade Cartridges in handloader quality

- Highest quality
- Defined accuracy standard of maximum 16.9 mm to 25 mm standard deviation from test barrels
- For long-range disciplines for ranges up to 1200 m
- Large-bore cartridges prepared in handloader quality
- Specially manufactured match cases as well as selected HPBT match bullets
- Consistent point of impact from lot to lot
- Configured for best-grade match weapons with twist rates for long-range shooting

Bullet Item No.	Weight g gr	Barrel length mm BC-Value [1]	V 2) E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR 3)		50m	100m	150m	200m	250m	300m	Ctg/box	
															Trajectory (cm)					
.223 Rem.																				
TARGET ELITE PLUS	3.4	600	V[m/sec]	1056	966	882	799	720	645	577	⊕	100 m	-1.2	⊕	-2.0	-7.8	-18.5	-35.1	20	NEW
241 16 33	52	0.195	E[J]	1896	1586	1322	1085	881	707	566	RZR	164 m	0.8	4.0	4.0	0.2	-8.5	-23.1		
TARGET ELITE PLUS	5.0	600	V[m/sec]	785	746	708	672	637	602	569	⊕	100 m	-0.3	⊕	-4.6	-14.6	-30.7	-53.6	20	
240 38 68	77	0.373	E[J]	1541	1391	1253	1129	1014	906	809	RZR	162 m	1.7	4.0	1.4	-6.6	-20.7	-41.6		
6.5 Creedmoor																				
TARGET ELITE PLUS	8.4	610	V[m/sec]	869	841	813	786	759	733	708	⊕	100 m	-0.3	⊕	-3.4	-10.9	-22.5	-38.8	20	NEW
240 97 62	130	0.548	E[J]	3173	2970	2777	2595	2422	2259	2104	RZR	178 m	1.7	4.0	2.5	-2.9	-12.6	-26.8		
6,5 x 55 SE																				
TARGET ELITE PLUS	8.4	740	V[m/sec]	830	803	776	749	723	698	673	⊕	100 m	-0.1	⊕	-4.0	-12.3	-25.4	-43.4	20	NEW
240 97 61	130	0.548	E[J]	2895	2706	2528	2358	2198	2046	1903	RZR	168 m	1.8	3.8	1.8	-4.6	-15.7	-31.9		
.308 Win.																				
TARGET ELITE PLUS	10.0	600	V[m/sec]	890	852	815	779	744	709	676	⊕	100 m	-0.8	⊕	-2.9	-9.8	-21.2	-37.5	20	NEW
240 86 32	154	0.412	E[J]	3961	3630	3321	3034	2768	2513	2285	RZR	184 m	1.1	3.9	3.0	-2.0	-11.4	-25.7		
TARGET ELITE PLUS	10.9	600	V[m/sec]	810	776	743	711	680	649	620	⊕	100 m	-0.5	⊕	-4.0	-12.8	-27.0	-47.0	20	
240 38 67	168	0.438	E[J]	3576	3282	3009	2755	2520	2296	2095	RZR	169 m	1.5	4.0	2.0	-4.8	-16.9	-34.9		
TARGET ELITE PLUS	12.3	650	V[m/sec]	796	768	741	713	687	661	636	⊕	100 m	-0.4	⊕	-4.0	-12.9	-27.0	-46.7	20	NEW
240 86 33	190	0.528	E[J]	3897	3627	3377	3126	2903	2687	2488	RZR	167 m	1.5	3.9	1.8	-5.1	-17.2	-35.0		
.300 Win. Mag.																				
TARGET ELITE PLUS	11.3	650	V[m/sec]	932	899	867	836	806	777	747	⊕	100 m	-1.0	⊕	-2.3	-8.1	-17.6	-31.3	20	NEW
241 16 81	175	0.498	E[J]	4908	4566	4247	3949	3670	3411	3153	RZR	188 m	1.0	4.0	3.8	0.0	-7.6	-19.2		
TARGET ELITE PLUS	12.3	650	V[m/sec]	875	846	817	789	761	734	707	⊕	100 m	-0.8	⊕	-2.9	-9.7	-20.8	-36.4	20	
240 38 66	190	0.530	E[J]	4709	4402	4105	3829	3562	3313	3074	RZR	186 m	1.2	4.0	3.1	-1.7	-10.8	-24.4		
.338 Lapua Mag.																				
TARGET ELITE PLUS	19.4	650	V[m/sec]	780	759	739	719	699	680	661	⊕	100 m	-0.4	⊕	-4.1	-13.0	-26.9	-46.1	20	
240 51 20	300	0.708	E[J]	5901	5588	5297	5015	4739	4485	4238	RZR	168 m	1.6	4.0	1.9	-4.9	-16.8	-34.0		

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Jean Quiquampoix,
Silver medalist Olympic Games 2016

READY FOR SUCCESS

'I use the R50 as well as the Pistol Match SR for practice and competition because they are absolutely reliable and uniform in performance. I can rely on these cartridges 100 percent. They are simply perfect for me!'

RWS - The ammunition counts!

RIMFIRE CARTRIDGES

The ammunition counts

RWS rimfire cartridges have been successful in the competitive target sector for many years and scoring numerous victories at club, international and Olympic levels. To further these successes, RWS work with top shots and proven experts to continuously improve their products. A decades-long experience in loading ammunition is the basis upon which RWS build their improvements.
Not only are the cartridges continually improved and submitted to the highest technical standards of performance, the design of the packaging is also very well thought out. The clear separation of RWS rimfire cartridges into product lines makes it easier to choose the right cartridge for the desired application. In addition, a classification of target cartridges by means of stars has been introduced to signify their relative precision and performance.

★★★★★

The pictograms on the packaging indicate the number of rounds, the bullet weight, whether the use is intended for pistol or rifle, and the calibre.

PREMIUM LINE

Thanks to its top performance and absolute reliability, every single one of the RWS branded rimfire products proves its first-class quality every day. Whether for shooting in international or club competitions, training or in special applications, RWS rimfire cartridges stand for the highest reliability and accuracy.

PREMIUM LINE
Stands for cartridges of highest quality and performance for the High End sector

PROFESSIONAL LINE
Features high performance cartridges for competition and training

SPORT LINE
Features reliable training cartridges for price-conscious shooters

FIELD LINE
Contains cartridges intended for special applications.

facebook.com/RWSSportmunition

RWS is a partner and sponsor of

the German Shooting Sport Federation National Team

the Swiss Shooting Federation

the French Shooting Federation

the Hungarian Shooting Federation

PREMIUM LINE

Highest quality and accuracy for elite sport

RWS is official partner of the Swiss National Biathlon Team

BIATHLON COMPETITION

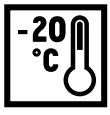
NEW

- Competition-grade cartridge with a new standard of accuracy for world-class biathlon shooters
- Unparalleled accuracy and reliability thanks to a fine-tuned production process
- Each lot is inspected and tested to ensure that it meets the very highest standards
- Uniform velocity
- In order to produce the best results for biathlon shooting, these cartridges were developed in a cold chamber (down to -20° C)
- Caliber: .22 long rifle
- Lead bullet, 2.6 g, V_0 320 m/sec (barrel length: 65 cm)

BIATHLON SPECIAL MATCH

NEW

- Match quality cartridges for all biathletes
- Recommended for both competition and training
- Unparalleled accuracy and reliability thanks to a fine-tuned production process
- Each lot is inspected and tested to ensure that it meets the very highest standards
- In order to produce the best results for biathlon shooting, these cartridges were developed in a cold chamber (down to -20° C)
- Caliber: .22 long rifle
- Lead bullet, 2.6 g, V_0 320 m/sec (barrel length: 65 cm)



	Item No.	Calibre	Type	Bullet	Weight g	Barrel Length mm	Velocity m/sec V_0	V_{50}	V_{100}	Energy joules E_0	E_{50}	E_{100}	Ctg/ box
NEW	241 40 34	.22 l.r.	**Biathlon Competition**	LRN	2.6	650	320	294	275	137	115	101	50
NEW	241 40 35	.22 l.r.	**Biathlon Special Match**	LRN	2.6	650	320	294	275	137	115	101	50

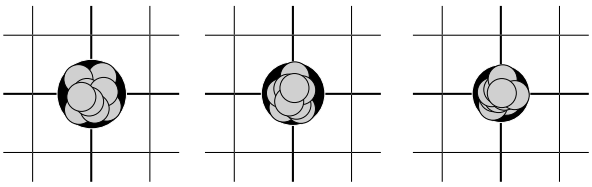
* Velocity and Energy at -20°C

PREMIUM LINE

Highest quality and accuracy for elite sport

R 50

- The cartridge of choice for numerous Olympic champions and world record holders
- Matchless precision and reliability due to specially coordinated production processes
- Each batch is inspected several times and tested thoroughly with regard to ballistics, gas pressure and dispersion pattern
- Series for series with components that are matched with each other and inspected several times
- Consistent speed
- Ideal for the entire area of small bore match gun, benchrest and free pistol shooting
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 330 m/sec (barrel length: 65 cm)



Sample shooting results:
10 shots / 50 m with RWS R 50

R 100

- Top quality cartridge with excellent shooting performance and accuracy
- Preferred by a lot of internationally successful competition shooters
- High velocity in supersonic range
- Recommended as simple rifle cartridge for all disciplines at 50 und 100 m
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 345 m/sec (barrel length: 65 cm)

SPECIAL MATCH

- Very good quality and accuracy
- Reducing the error rate in competition and training
- Recommended for the entire area of small bore guns, free pistols and sport pistols
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 330 m/sec (barrel length: 65 cm)

Item No.	Calibre	Type	Bullet	Weight	Barrel Length	Velocity m/sec			Energy joules		Ctg/ box
				g	mm	V_0	V_{50}	V_{100}	E_0	E_{50}	E_{100}	
213 41 87	.22 l.r.	**R 50**	LRN	2.6	650	330	294	271	142	113	95	50
213 41 95	.22 l.r.	**R 100**	LRN	2.6	650	345	304	277	155	120	100	50
213 42 33	.22 l.r.	**Special Match**	LRN	2.6	650	330	294	271	142	113	95	50

PROFESSIONAL LINE

High accuracy for competition and training

RIFLE MATCH S

- Fast cartridge for training and competitions
- Supersonic velocity
- Top accuracy at 50 m as well as 100 m
- Good alternative for sensitive barrels
- Training cartridge for R 100
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 345 m/sec (barrel length: 65 cm)

RIFLE MATCH

- The ace of guns
- Special cartridge for rifles
- Best possible velocity development
- Very good performance
- Attractive price
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 330 m/sec (barrel length: 65 cm)

PISTOL MATCH SR

- Top grade pistol ammunition
- Softer recoil thanks to less priming material and new propellant
- Uniform and minimal muzzle jump due to a very consistent burning characteristic
- Reduced muzzle impulse, smaller muzzle flash
- Perfect combination of hardly noticeable recoil and soft shot development
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 260 m/sec (barrel length: 13 cm)

PISTOL MATCH

- Reliable function and high accuracy
- Ideal for sporting and standard pistols at 25 m
- Extremely soft shot release
- Outstanding internal ballistic values
- Less impact on arm muscles, less effort required
- Convincing price/performance ratio
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 275 m/sec (barrel length: 13 cm)

Item No.	Calibre	Type	Bullet	Weight g	Barrel Length mm	Velocity m/sec V_0	V_{50}	V_{100}	Energy joules E_0	E_{50}	E_{100}	Ctg/ box
231 43 72	.22 l.r.	**Rifle Match S**	LRN	2.6	650	345	304	277	155	120	100	50
213 42 25	.22 l.r.	**Rifle Match**	LRN	2.6	650	330	294	271	142	113	95	50
231 77 99	.22 l.r.	**Pistol Match SR**	LRN	2.6	130	260	244	229	88	77	68	50
213 24 43	.22 l.r.	**Pistol Match**	LRN	2.6	130	275	257	241	98	86	76	50

SPORT LINE

Cartridges for starting out and for intensive shooting

TARGET RIFLE

- Universal cartridge with unbeatable quality
- Consistently outstanding shot performance
- Balanced velocity
- Proven training cartridge
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 330 m/sec (barrel length: 65 cm)

TARGET PISTOL

- Fast training cartridge
- Precise and reliable
- The cartridge functions reliably even in sensitive pistols and semi-automatic rifles
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 285 m/sec (barrel length: 13 cm)

CLUB

- Satisfying precision
- Training ammunition for beginners
- Faultless performance from many weapons
- Inexpensive training cartridges
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 330 m/sec (barrel length: 65 cm)

SEMI AUTO

- Special powder load optimised for use in semi-automatic rifles and pistols
- The cartridges are made and inspected to RWS quality standards
- Made in Germany for good accuracy and reliable functioning
- Lead bullet: 2.6 g
- V_0 355 m/sec +/- 10m/sec (barrel length: 65 cm)
- V_0 330 m/sec (barrel length: 42 cm)
- V_0 295 m/sec (barrel length: 15 cm)

Item No.	Calibre	Type	Bullet	Weight	Barrel Length	Velocity m/sec			Energy joules			Ctg/ box
				g	mm	V_0	V_{50}	V_{100}	E_0	E_{50}	E_{100}	
213 24 78	.22 l.r.	**Target Rifle**	LRN	2.6	650	330	294	271	142	113	95	50
213 27 10	.22 l.r.	**Target Pistol**	LRN	2.6	130	285	262	244				50
213 28 85	.22 l.r.	**Club***	LRN	2.6	650	330	295	270	142	113	95	50
231 86 01	.22 l.r.	**Semi Auto**	LRN	2.6	650	355	309	281	164	124	103	50

* limited availability

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.


NEW
bleifrei
GREEN™
lead-free

FIELD LINE

Designed for successful hunting - lead-free

For all those who prefer to – or must – refrain from using traditional lead-core hunting bullets, RWS now offers two lead-free loadings in .22 long rifle: High Velocity Green and High Velocity Green Fragmentation. Both are 100% lead-free. This means that not only is the bullet made of copper-plated zinc, but the primer is lead-free as well. The new RWS High Velocity Green and High Velocity Green Fragmentation are also expressions of the superior technological competence behind "Made in Germany". RWS develops and produces all of its own components, such as cases, primers and bullets. This is the only way that all components of a cartridge can be exactly matched to one another, thereby guaranteeing RWS' legendary product quality.

NEW HIGH VELOCITY GREEN

bleifrei GREEN™ lead-free

- Copper-plated solid zinc bullet for hunting and plinking
- 100% lead free: lead-free primer and lead-free bullet
- Outstanding effect due to up to 58% higher velocity than standard
- Suitable for rifles and semiautomatic firearms
- Caliber: .22 long rifle
- Zinc bullet, 1.6 g, V_0 520 m/sec (barrel length: 65 cm)

NEW HIGH VELOCITY GREEN FRAGMENTATION

bleifrei GREEN™ lead-free

- Copper-plated zinc partially fragmenting hunting bullet
- 100% lead free: lead-free primer and lead-free bullet
- Outstanding effect due to up to 58% higher velocity than standard
- Fragmenting hollow-point bullet for maximum shocking power
- Suitable for rifles
- Caliber: .22 long rifle
- Zinc bullet, 1.6 g, V_0 520 m/sec (barrel length: 65 cm)

The partially fragmenting bullet of the High Velocity Green Fragmentation delivers outstanding shocking power. Thanks to its copper-plated zinc hollow-point bullet and a velocity that is up to 58% higher than that of a standard lead round nose bullet, an optimal depth of penetration as well as great energy deposit into the target are guaranteed.

	Item No.	Calibre	Type	Bullet	Weight	Barrel Length	Velocity m/sec			Energie joules			sighting-in distance	point of impact in cm with scope mounted 5cm above bore axis				Ctg/ box
					g	mm	V_0	V_{50}	V_{100}	E_0	E_{50}	E_{100}		25 m	50 m	75 m	100 m	
NEW	241 38 17	.22 l.r.	**High Velocity Green**	Zinc. copper-plated	1.6	650	520	396	313	210	122	76	50 m	-1.0	⊕	-2.9	-10.9	50
NEW	241 38 18	.22 l.r.	**High Velocity Green Fragmentation**	Zinc. HP. copper-plated	1.6	650	520	397	313	210	122	76	50 m	-1.0	⊕	-2.9	-10.9	50

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

FIELD LINE

Designed for successful hunting and special applications

SUBSONIC HP

- Specialty for low-noise shooting
- Special precision cartridges for hunting
- The velocity is always under sound barrier
- Suitable for guns with moderators
- Good function in single loaders
- The hollow point guarantees certain effectiveness for small game and predators
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 315 m/sec (barrel length: 65 cm)

Z LANG

- Perfection at close range
- Designed especially for shooting at close range
- Extremely suitable for indoor shooting
- Quiet and gentle recoil
- Characterized by particularly low speed
- Totally reliable
- Calibre: .22 long rifle
- Lead bullet, 1.9 g, V_0 235 m/sec (barrel length: 65 cm)

For more rimfire cartridges, please see our listings in the Norma and GECO sections of this catalogue

Item No.	Calibre	Type	Bullet	Weight g	Barrel Length mm	Velocity m/sec V_0	V_{50}	V_{100}	Energie joules E_0	E_{50}	E_{100}	point of impact in cm with scope mounted 5cm above bore axis sighting-in distance	25 m	50 m	75 m	100 m	Ctg/ box
213 26 64	.22 l.r.	**Subsonic**	LHP	2.6	650	315	285	264	129	106	89	50 m	1.0	⊕	-8.5	-25.1	50
213 27 53	.22 l.r.	**Z lang**	LRN	1.9	650	235	219	204	52	46	40						50

FIELD LINE

Designed for successful hunting and special applications

HIGH VELOCITY

- Copper coated solid lead bullet for hunting small game
- Excellent impact and penetration with a tangible increase of 80 m/sec in speed
- Suitable for long rifles and insert barrels
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 385 m/sec (barrel length: 65 cm)

HIGH VELOCITY HP

- Enhanced power and expansion on small game and vermin via its copper-plated lead hollow point bullet
- Very good penetration due to a tangible increase of
- 80 m/sec in speed
- Suitable for long rifles and insert barrels
- Calibre: .22 long rifle
- Lead bullet, 2.6 g, V_0 385 m/sec (barrel length: 65 cm)

MAGNUM FMJ

- The high velocity is responsible for extremely high energy release at the target
- Extended trajectory of up to 100 m is exactly right for hunting
- Minimal damage to the game – minimal damage to the hide
- Calibre: .22 Win. Mag.
- Lead bullet, 2.6 g, V_0 595 m/sec (barrel length: 60 cm) (Full metal jacket)

MAGNUM SP

- The high velocity is responsible for extremely high energy release and superior penetration at the target
- Flat trajectory of up to 100 m, optimum for hunting small game and prey
- Good penetration due to the hollow point
- Calibre: .22 Win. Mag.
- Lead bullet, 2.6 g, V_0 595 m/sec (barrel length: 60 cm) (Hollow Point Bullet)

Item No.	Calibre	Type	Bullet	Weight g	Barrel Length mm	Velocity m/sec V_0	V_{50}	V_{100}	Energie joules E_0	E_{50}	E_{100}	point of impact in cm with scope mounted 5cm above bore axis: sighting-in distance	25 m	50 m	75 m	100 m	Ctg/ box
213 24 86	.22 l.r.	**High Velocity**	LRN	2.6	650	385	328	293	193	140	112	50 m	1.5	⊕	-7.2	-20.8	50
213 24 94	.22 l.r.	**High Velocity**	LHP	2.6	650	385	328	293	193	140	112	50 m	1.5	⊕	-7.2	-20.8	50
213 30 83	.22 Win. Mag.	**Magnum**	FMJ	2.6	600	595	495	418	460	319	227	100 m	-0.2	2.5	2.7	⊕	50
213 30 75	.22 Win. Mag.	**Magnum**	SHP	2.6	600	595	495	418	460	319	227	100 m	-0.2	2.5	2.7	⊕	50

Maxi Dallinger
Twice the Junior European Champion

READY FOR SUCCESS

'Each of us tries to place the best shots in training and in competitions to achieve the goals for which we train every year anew. Therefore precise and reliable ammunition is essential for a sport shooter. With RWS I have found a partner with whom I can rely on exactly that. That's why I prefer RWS Ammunition. In addition, I consider performance, respect and friendship to be the absolute basic values in sport. RWS unites all these values!'

RWS - The ammunition counts.

AIRGUN PELLETS

The ammunition counts

As a leading supplier of air gun ammunition, the name RWS guarantees excellent quality and technology worldwide. Decades of experience in the production of diabolo pellets assure an impressive lead on the market. RWS air gun pellets are characterised by their particularly skilful material composition, the special surface finish and optimised weight. This guarantees outstanding precision. All RWS match pellets are manufactured in the classical diabolo shape. The head, the skirt and the special shape of the pellet head plate are decisive factors for the ideal stabilisation of the pellet in the barrel and also for sharp outlines of the pellet holes. Close production tolerances combined with strict testing conditions allow the optimisation of the precision – here, quality has been redefined. The range offers a wide selection of precision projectiles for matches and training as well as numerous custom shapes for special applications. Five clearly structured product lines make it easier to make the right choice for each application. Whether for shooting in international competitions or at club level, in training or for popular sport – RWS air gun pellets always stand for absolute reliability and precision.

RWS is a partner and sponsor of

the German Shooting Sport Federation National Team

the Swiss Shooting Federation

the French Shooting Federation

the Hungarian Shooting Federation

RWS HYPERMATCH

The first lead-free premium match quality air gun pellet from RWS

- Made in the classic match diabolo shape
- The ideal air gun pellet for lead-free training and competition
- Outstanding accuracy for a lightweight tin pellet
- 7.5 mm shot group size
- The high-tech tin alloy is absolutely lead-free, environmentally safe and easy on the barrel.
- Available in calibre 4.5 mm
- Weight: 0.33 g / 5.1 gr
- 250-count round tin

Bleifreie Kugel GREEN™ Lead-free pellet

HYPERMATCH

250 | 0.33 g 5.1 gr

Kaliber 4.5 mm / Caliber .177

Type	Item No.	Calibre mm	Pellet weight g	Head diameter in mm	Pellet length mm	Single pack	Sales pack.
HYPERMATCH / 0.33 g	231 88 69	4.5	0.33	4.50	5.6	250	2500

See page 52 for more lead-free air gun pellets

PREMIUM LINE

Premium match pellets – highest quality for top sports

RWS R 10 MATCH, RWS R 10 MATCH PLUS
In shooting circles, R10 MATCH pellets have long been known as high-end pellets with the greatest precision. Selected material quality, tight production tolerances and professional precision control ensure the top quality of the R10. Absolute dimensional consistency in length and weight are a matter of course, as are the tightest, uniform shooting patterns and sharply punched out holes.
The best R10 MATCH pellets are selected for the R10 MATCH PLUS and are carefully packaged in the specially produced competition packages.
R10 MATCH pellets are the top choice of the world's elite shooters as well as ambitious club shooters interested in high performance.

- Available in calibre 4.5 mm
- Four different head diameters
- Weight: 0.45 g and 0.53 g
- 500-count round tin or 100-count competition package

RWS R 10 MATCH

R 10 MATCH

500 | 0.53 g 8.2 gr

Kaliber 4.5 mm / Caliber .177

R 10 MATCH

500 | 0.45 g 7.0 gr

Kaliber 4.5 mm / Caliber .177

Especially for pistol shooters

RWS R 10 MATCH PLUS

R 10 MATCH PLUS

100 | 0.53 g 8.2 gr

Kaliber 4.5 mm / Caliber .177

Type	Item No.	Calibre mm	Pellet weight g	Head diameter in mm	Pellet length mm	Single pack.	Sales pack.
R 10 MATCH PLUS / 0.53 g	213 52 64	4.5	0.53	4.50	5.5	100	500
R 10 MATCH / 0.53 g	213 73 56	4.5	0.53	4.48	5.5	500	5000
	213 73 64	4.5	0.53	4.49	5.5	500	5000
	213 59 06	4.5	0.53	4.50	5.5	500	5000
	213 73 72	4.5	0.53	4.51	5.5	500	5000
R 10 MATCH / 0.45 g	231 54 40	4.5	0.45	4.48	5.4	500	5000
	231 54 41	4.5	0.45	4.49	5.4	500	5000
	231 54 42	4.5	0.45	4.50	5.4	500	5000
	231 54 43	4.5	0.45	4.51	5.4	500	5000

Air gun pellets can be purchased without licence.

PROFESSIONAL LINE

Powerful MEISTERKUGELN – precision for competition and training

RWS MEISTERKUGELN

For decades RWS MEISTERKUGELN have been part of every ambitious shooter's equipment. Significant improvements in production technology have led to yet another enhancement in quality. New material compositions and optimised surface treatment have created a permanently bright and shiny appearance. The production of accurate dimension and weight is subject to continuous checks.

- Available in calibres 4.5 mm and 5.5 mm
- Four different head diameters
- Weight: 0.45 g, 0.53 g and 0.91 g
- 250-count and 500-count round tin

RWS MEISTERKUGELN / 0.53 G

MEISTERKUGELN

500 | 0.53 g 8.2 gr

Kaliber 4.5 mm / Caliber .177

MEISTERKUGELN

250 | 0.53 g 8.2 gr

Kaliber 4.5 mm / Caliber .177

RWS MEISTERKUGELN / 0.91 G

MEISTERKUGELN

500 | 0.91 g 14.0 gr

Kaliber 5.5 mm / Caliber .22

RWS MEISTERKUGELN / 0.45 G

MEISTERKUGELN

500 | 0.45 g 7.0 gr

Kaliber 4.5 mm / Caliber .177

Especially for pistol shooters

Type	Item No.	Calibre mm	Pellet weight g	Head diameter in mm	Pellet length mm	Single pack.	Sales pack.
MEISTERKUGELN / 0.53 g	231 58 54	4.5	0.53	4.48	5.5	500	5000
	213 60 23	4.5	0.53	4.49	5.5	500	5000
	213 59 65	4.5	0.53	4.50	5.5	500	5000
	213 60 31	4.5	0.53	4.51	5.5	500	5000
	213 60 07	4.5	0.53	4.50	5.5	250	2500
MEISTERKUGELN / 0.91 g	213 59 30	5.5	0.91		6.4	500	2500
MEISTERKUGELN / 0.45 g	213 59 22	4.5	0.45	4.48	5.4	500	5000
	231 54 45	4.5	0.45	4.49	5.4	500	5000
	231 54 46	4.5	0.45	4.50	5.4	500	5000
	231 50 20	4.5	0.45	4.51	5.4	500	5000

FIELD LINE

Specific shapes - designed for special applications

RWS SUPERMAG

The super heavy RWS SUPERMAG weighs considerably more and is especially suited for shooting with heavier air guns at middle distances.

- Available in calibre 4.5 mm
- Weight: 0.60 g
- 500-count round tin

SUPERMAG

500 | 0.60 g 9.3 gr

Kaliber 4.5 mm / Caliber .177

RWS SUPER FIELD

The RWS SUPER FIELD is especially suited to Pre-charged Pneumatic Air Rifles. These heavy air gun pellets with round heads are impressive at middle to far distances due to their precision and performance.

- Available in calibres 4.5 mm and 5.5 mm
- Weight: 0.54 g and 1.03 g
- 500-count round tin

SUPER FIELD

500 | 0.54 g 8.4 gr

Kaliber 4.5 mm / Caliber 177

SUPER FIELD

500 | 1.03 g 15.9 gr

Kaliber 5.5 mm / Caliber .22

RWS SUPERDOME

The SUPERDOME has an English bulldog shape with a round head with a striking, grooved rear section. It is best suited for hunting at middle distances.

- Available in calibres 4.5 mm, 5.5 mm and 6.35 mm
- Weight: 0.54 g, 0.94 g and 2.00 g
- 200-count and 500-count round tin

SUPERDOME

500 | 0.54 g 8.3 gr

Kaliber 4.5 mm / Caliber .177

SUPERDOME

500 | 0.94 g 14.5 gr

Kaliber 5.5 mm / Caliber .22

SUPERDOME

200 | 2.00 g 31 gr

Kaliber 6.35 mm / Caliber .25

Type	Item No.	Calibre mm	Pellet weight g	Head diameter in mm	Pellet length mm	Single pack.	Sales pack.
SUPERMAG	213 67 59	4.5	0.60		6.0	500	5000
SUPER FIELD	231 71 62	4.5	0.54	4.51	6.6	500	5000
	231 71 64	4.5	0.54	4.52	6.6	500	5000
	231 71 63	5.5	1.03	5.51	7.51	500	2500
	231 71 65	5.5	1.03	5.52	7.51	500	2500
SUPERDOME	213 67 91	4.5	0.54		5.7	500	5000
	213 68 05	5.5	0.94		7.0	500	2500
	231 72 63	6.35	2.00		10.0	200	1000

Air gun pellets can be purchased without licence.

FIELD LINE

Specific shapes - designed for special applications

RWS SUPERPOINT EXTRA

Thanks to its conical head form, amazing penetration capabilities are realized with the RWS SUPERPOINT EXTRA. It also has the necessary precision thanks to the optimum weight distribution.

- Available in calibres 4.5 mm and 5.5 mm
- Weight: 0.53 g and 0.94 g
- 500-count round tin

SUPERPOINT EXTRA

500 | 0.53 g 8.2 gr

Kaliber 4.5 mm / Caliber .177

SUPERPOINT EXTRA

500 | 0.94 g 14.5 gr

Kaliber 5.5 mm / Caliber .22

RWS SUPER-H-POINT

The RWS SUPER-H-POINT is a diabolo pellet with a hollow point, characterised by high deformation capability and strong penetration.

- Available in calibres 4.5 mm, 5.5 mm and 6.35 mm
- Weight: 0.45 g, 0.92 g and 1.62 g
- 200-count and 500-count round tin

SUPER-H-POINT

500 | 0.45 g 6.9 gr

Kaliber 4.5 mm / Caliber .177

SUPER-H-POINT

500 | 0.92 g 14.2 gr

Kaliber 5.5 mm / Caliber .22

SUPER-H-POINT

200 | 1.62 g 25 gr

Kaliber 6.35 mm / Caliber .25

Type	Item No.	Calibre mm	Pellet weight g	Pellet length mm	Single pack.	Sales pack.
SUPERPOINT EXTRA	213 67 16	4.5	0.53	7.0	500	5000
	213 67 24	5.5	0.94	8.7	500	2500
SUPER-H-POINT	213 66 78	4.5	0.45	5.5	500	5000
	213 66 86	5.5	0.92	8.0	500	2500
	231 72 62	6.35	1.62	8.7	200	1000

FIELD LINE

Lead-free air gun pellets -
for maximum velocity, accuracy and effectiveness at pest control

RWS HYPERMAX

RWS HYPERMAX air gun pellets in the Field Line impress with up to 25 – 30% higher velocity, best performance and great accuracy. Made from solid tin, they are absolutely lead-free, environmentally safe and easy on the barrel since leading is impossible.

The highlights at a glance:

- Between 25 - 30% faster than standard pellets of the same calibre
- Conical point for excellent penetration
- High-tech tin alloy
- Ultra light weight
- Brilliant High Speed finish
- Lead-free and therefore eco-friendly and easy on the barrel
- Very good accuracy

Applications: Silhouette shooting, small pest control

Suitable for air guns and air pistols.

- Available in calibres 4.5 mm and 5.5 mm
- Weight: 0.34 g and 0.64 g
- 200-count and 150-count round tin

HYPERMAX
200 | 0.34 g / 5.2 gr
Kaliber 4.5 mm / Caliber .177
Zinn/Tin

HYPERMAX
150 | 0.64 g / 9.9 gr
Kaliber 5.5 mm / Caliber .22
Zinn/Tin

RWS HYPERDOME

RWS HYPERDOME air gun pellets are light high-speed tin pellets with great penetration and extraordinary accuracy. They are absolutely lead-free, environmentally safe and easy on the barrel since leading is impossible.

The highlights at a glance:

- Very lightweight and therefore faster than standard pellets of the same calibre
- Bulldog head for excellent penetration
- High-tech tin alloy
- Brilliant High Speed finish
- Lead-free and therefore eco-friendly and easy on the barrel
- Delivers very tight groups

Applications: Silhouette shooting, small pest control

Suitable for air guns and air pistols.

- Available in calibres 4.5 mm and 5.5 mm
- Weight: 0.36 g and 0.71 g
- 200-count and 150-count round tin

HYPERDOME
200 | 0.36 g / 5.5 gr
Kaliber 4.5 mm / Caliber .177
Zinn/Tin

HYPERDOME
150 | 0.71 g / 11.0 gr
Kaliber 5.5 mm / Caliber .22
Zinn/Tin

Type	Item No.	Calibre mm	Pellet weight g	Pellet length mm	Single pack.	Sales pack.
HYPERMAX	231 81 61	4.5	0.34	7.10	200	2000
	231 81 96	5.5	0.64	8.60	150	1500
HYPERDOME	231 81 62	4.5	0.36	6.45	200	2000
	231 81 63	5.5	0.71	7.80	150	1500

Air gun pellets can be purchased without licence.

See page 47 for the lead-free premium match quality air gun pellet from RWS.

FIELD LINE

Designed primarily for hunting and silhouette shooting

RWS POWER PIERCING

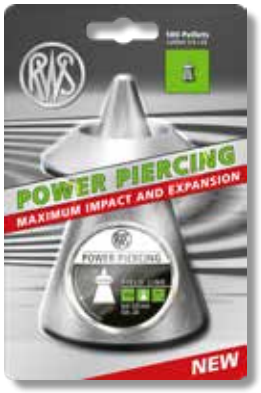
The RWS POWER PIERCING is a smooth-skirted air gun pellet with an extremely sharp lead hollow point.

The highlights at a glance:
- Maximum impact and great energy transfer into the target
- Stark mushrooming action on impact
- Very good accuracy
- Applications: Silhouette shooting and small pest control

- Suitable for air guns
- Available in calibres 4.5 mm and 5.5 mm
- Weight: 0.58 g and 0.89 g
- 200-count and 100-count blister pack

POWER PIERCING
200 | 0.58 g / 8.9 gr
Kaliber 4.5 mm / Caliber .177

POWER PIERCING
100 | 0.89 g / 13.7 gr
Kaliber 5.5 mm / Caliber .22



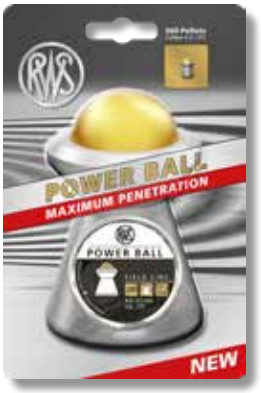
RWS POWER BALL

The RWS POWER BALL features a coated steel ball embedded into the pellet.

The highlights at a glance:
- Great energy transfer and effectiveness
- Very good penetration
- Approaching match accurcy
- Applications: Silhouette shooting and small pest control

- Suitable for air guns
- Available in calibre 4.5 mm
- Weight: 0.61 g
- 200-count blister pack

POWER BALL
200 | 0.61 g / 9.4 gr
Kaliber 4.5 mm / Caliber .177



RWS POWER BOLT

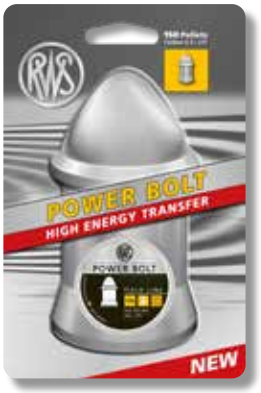
The RWS POWER BOLT is a super heavy air gun pellet designed for long-range shooting.

The highlights at a glance:
- Sophisticated design for the maximum in power and depth of penetration
- Applications: Field target shooting and small pest control
- Suitable for high-powered air guns (> 7.5 J)

- Available in calibres 4.5 mm and 5.5 mm
- Weight: 0.92 g and 1.6 g
- 150-count and 100-count blister pack

POWER BOLT
150 | 0.92 g / 14.2 gr
Kaliber 4.5 mm / Caliber .177

POWER BOLT
100 | 1.60 g / 24.7 gr
Kaliber 5.5 mm / Caliber .22



Type	Item No.	Calibre mm	Pellet weight g	Pellet length mm	Single pack.	Sales pack.
POWER PIERCING	240 00 64	4.5	0.58	8.8	200	1200
	231 86 03	5.5	0.89	9.4	100	600
POWER BALL	231 86 05	4.5	0.61	7.1	200	1200
POWER BOLT	231 88 71	4.5	0.92	8.9	150	900
	231 88 70	5.5	1.60	9.1	100	600

SPORT LINE

Proven training pellets – for getting started in shooting

RWS CLUB

Excellent results can be achieved with this lighter variant of a smooth pellet. The lighter design ensures increased velocity.

- Available in calibre 4.5 mm
- Weight: 0.45 g
- 500-count round tin

CLUB

500 | 0.45 g 7.0 gr

Kaliber 4.5 mm / Caliber .177

RWS HOBBY

The balanced and reliable quality at a low price makes the ribbed RWS HOBBY highly attractive for hobby shooters.

- Available in calibres 4.5 mm and 5.5 mm
- Weight: 0.45 g and 0.77 g
- 500-count round tin

HOBBY

500 | 0.45 g 7.0 gr

Kaliber 4.5 mm / Caliber .177

HOBBY

500 | 0.77 g 11.9 gr

Kaliber 5.5 mm / Caliber .22

RWS TRAINING

The RWS TRAINING expands the SPORT LINE range with a heavier version of the well-known, smooth CLUB pellet. It is an inexpensive option for training and its ballistic behavior is identical to the RWS MATCH pellets in this weight class.

- Available in calibre 4.5 mm
- Weight: 0.53 g
- 500-count round tin

TRAINING

500 | 0.53 g 8.2 gr

Kaliber 4.5 mm / Caliber .177

Type	Item No.	Calibre mm	Pellet weight g	Pellet length mm	Single pack.	Sales pack.
CLUB	213 61 98	4.5	0.45	5.2	500	5000
HOBBY	213 64 06	4.5	0.45	5.3	500	5000
	213 64 30	5.5	0.77	6.4	500	2500
TRAINING	231 88 72	4.5	0.53	5.5	500	5000

Air gun pellets can be purchased without licence.

BASIC LINE

Shooting fun at a low price

RWS DIABOLO BASIC

The RWS DIABOLO BASIC are well suited for use in all air guns. With flawless precision and accuracy, they fulfil all basic requirements at a very favourable price.

- Available in calibre 4.5 mm
- Weight: 0.45 g
- 500-count round tin

DIABOLO BASIC

500

Kaliber 4.5 mm / Caliber .177

Type	Item No.	Calibre mm	Pellet weight g	Pellet length mm	Single pack.	Sales pack.
DIABOLO BASIC	231 50 92	4.5	0.45	5.2	500	5000

RWS PELLET SAVER

Everyone has this problem: Pellet tins just cannot be transported securely once the sealing tape has been removed. The practical RWS Pellet Saver keeps the tins securely closed.

Now with an optimised fit for secure transport and easy replenishment.

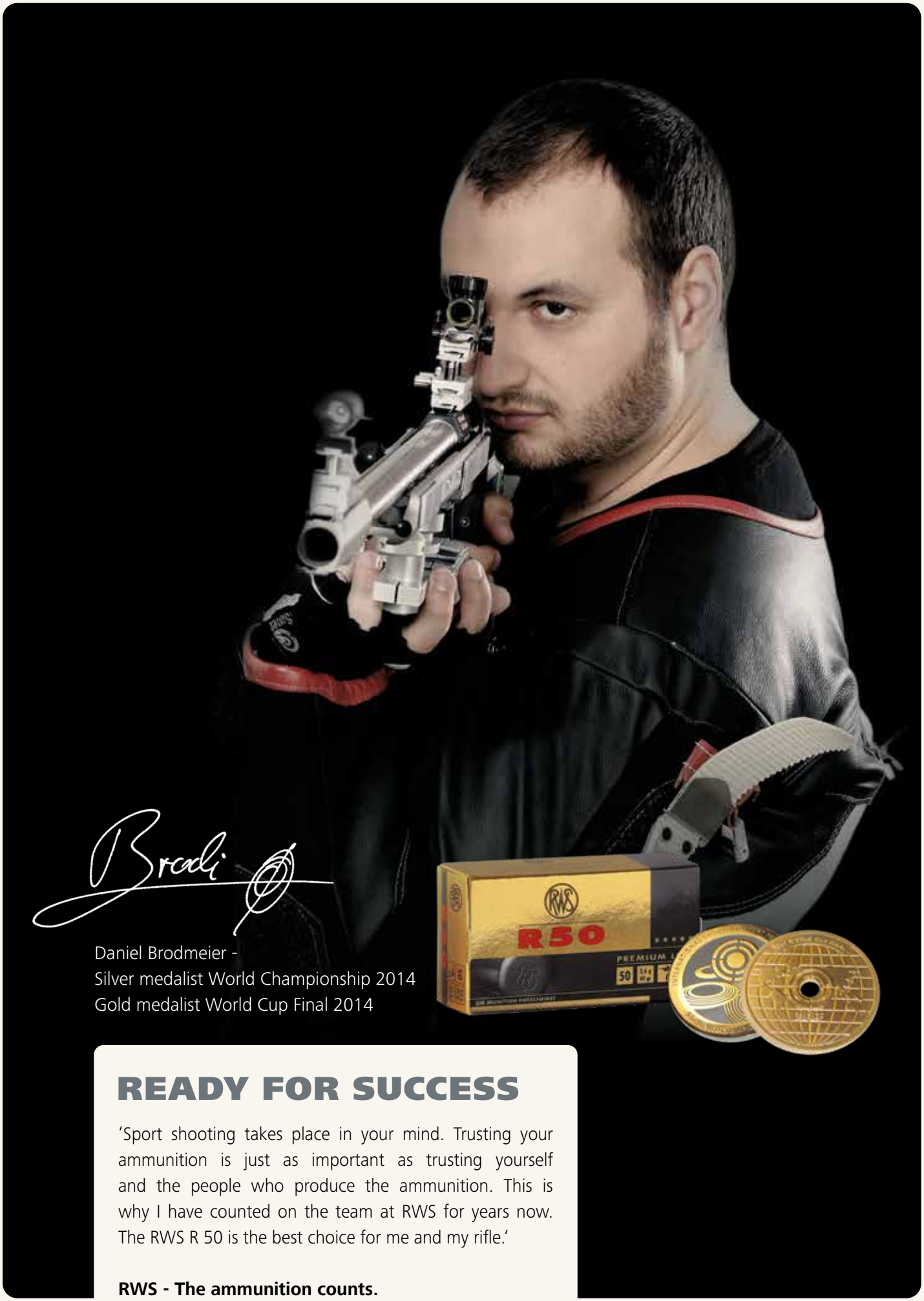
Item No.	Type
231 37 63	**RWS Pellet Saver**

For more air gun pellets, please see our listings in the Norma and GECO sections of this catalogue.

RWS COMPETITION BOX

The RWS Competition Box has been specially developed for competition shooters. Simply pour approx. 100 pellets out of a traditional tin into the Competition Box, shake it briefly, and the pellets are optimally positioned for use. The air gun pellets can then be easily removed one at a time and afterwards reliably transported to avoid damage. The shooter also has an instant overview of the number of pellets that have already been fired. The Competition Box offers – in combination with the RWS R 10 match pellets – the best pre-requisite for excellent accuracy in competitive marksmanship.

Item No.	Type
231 12 48	**RWS Competition Box** (without content)



Daniel Brodmeier -
Silver medalist World Championship 2014
Gold medalist World Cup Final 2014

READY FOR SUCCESS

'Sport shooting takes place in your mind. Trusting your ammunition is just as important as trusting yourself and the people who produce the ammunition. This is why I have counted on the team at RWS for years now. The RWS R 50 is the best choice for me and my rifle.'

RWS - The ammunition counts.

TEST RANGE

for the perfect combination of weapon and ammunition

RWS test range
The perfect combination of ammunition and rifle or pistol is decisive for the success of the target shooter. Therefore the requirements placed on the precision of competition barrels and ammunition are high, especially as each barrel has its own characteristics. Consequently it is important to match the barrel with different batches of ammunition in order to find the optimal batch.
For more than 25 years, experienced target shooters have used the facilities of the RWS test shooting range at our factory in the German city Fuerth to select the ideal target ammunition.

Ideal conditions
The shooting range is completely enclosed and so completely shielded from the elements. We have 5 ranges fitted with autotargets and the latest electronic hit displays, where shooters can fire clamped weapons at distances of 10, 15, 25 and 50 m.

The ammunition is already included in the reasonably priced test fee. Trained specialists set up the tests and are always on hand for advice.

How can you use the test range?
We will be happy to help you with any questions you might have. Ideally, the customer will come to the shooting range with his firearms and take part in the entire process. Please contact us to make appointments. Your local dealer will take care of respective arrangements.

Christian Thomas looks forward to welcoming you!

To book an appointment, get in touch with us by phone, email or fax:

phone: +49 911 79 30-156
fax: +49 911 79 30-282
E-mail: Christian.Thomas@ruag.com

You can test ammunition for the following weapons	Recommended ammunition Item No.	Type	Unit (minimum quantity)	Weight kg
RWS rimfire cartridges				
Small bore rifles .22 l.r.	213 41 95	**.22 l.r. R 100**	5,000	19
	213 41 87	**.22 l.r. R 50**	5,000	19
	213 42 33	**.22 l.r. Special Match**	5,000	19
Rapid fire, sport and free pistols .22 l.r.	213 41 87	**.22 l.r. R 50**	5,000	19
	213 42 33	**.22 l.r. Special Match**	5,000	19
	231 77 99	**.22 l.r. Pistol Match SR**	5,000	19
RWS airgun pellets				
Competition air guns 4.5 mm Rifle/pistol		**R 10 MATCH 0.53 g**	10,000 500 round tin	6
		R 10 MATCH HV 0.45 g	10,000 500 round tin	6

norma®

DEDICATED SINCE 1902

ALWAYS THE BEST CHOICE

NORMA - ALWAYS THE BEST CHOICE TO MASTER YOUR NEXT CHALLENGE.

Welcome to the world of Norma! A constantly evolving, ever more passionate and exciting world.

Norma's news in brief: 2020 sees us tapping into the big trend towards silencers, as we release our popular ORYX bullet in a range of ammunition tailored for short barrels – the NORMA SILENCER SERIES. ORYX Silencer flies as fast and strikes as true as our standard-barrel ammunition, while making muzzle flash a thing of the past. Our long-range hunting bullet, BONDSTRIKE Extreme, gets a new addition this year. We're introducing a new 6.5 mm bullet in the most popular calibers.

This year Norma takes a huge step forward in the rimfire category with four new and innovative novelties that immediately puts the brand ahead of the competition. Two new 100% lead-free hunting cartridges with astonishing velocity, where one comes with a fragmenting bullet that supercedes competition in terms of delivered energy.

We also introduce two new competition cartridges for biathlon shooting delivering the same consistently accurate results even down to very cold temperatures in winter time.

DH Dedicated Hunting

DPR Dedicated Precision

DC Dedicated Components

YOU CAN RELY ON US, NOW AND ALWAYS.

At Norma, we work relentlessly and passionately to satisfy the needs of hunters and shooters worldwide. We will continue to be the very benchmark of how exciting dreams become reality. And we will keep supporting you succeed in your challenges by always going that extra mile. Our offering to the world's hunters and shooters is simple: always the best choice to master your next challenge. Just test our new products 2020 yourself.

NEW

BONDSTRIKE™ Extreme Long Range

Now in 6.5 Creedmoor, 6.5x55 SE and 6.5-284 Norma

The BONDSTRIKE™ Extreme 6.5 combines excellent accuracy, an extremely high ballistic coefficent and tough construction for exceptional performance on medium and large game at all distances.

NEW

ORYX™ SILENCER

Optimized for silencers and short barrels

Don't miss out on speed and effect when using your silencer. Norma introduces new silencer optimized ammunition for 2020.

NEW

.22 l.r. Biathlon Match-22 and Sport-22

2020 Norma returns to the competition scene in Biathlon with a new and updated line of high quality rimfire cartridges in .22 l.r.

.22 l.r. ECO Speed-22 and Power-22

Also new for this year are the 100% lead-free ECO Speed-22 and ECO Power-22 for varmint and small game hunters.

norma®

DEDICATED SINCE 1902

BONDSTRIKE™

Extreme Long Range

EFFECTIVE AT ALL RANGES

BONDSTRIKE™ EXTREME NOW IN 6,5 MM

EXTREME ACCURACY AND TERMINAL PERFORMANCE AT ALL DISTANCES

A winning combination of streamlined polymer tip and match style boat tail

Unique bonding technology and state of the art design

Extreme accuracy and terminal performance at all distances

A NEW LEVEL OF ACCURACY AND TERMINAL PERFORMANCE

BONDSTRIKE was designed from the ground up for extreme long-range accuracy and excellent performance on game at all distances. Our engineers delivered a bullet that is bonded for weight retention and penetration up close. But also unbelievably accurate with an aerodynamic design.

www.norma-ammunition.com

DH Dedicated Hunting

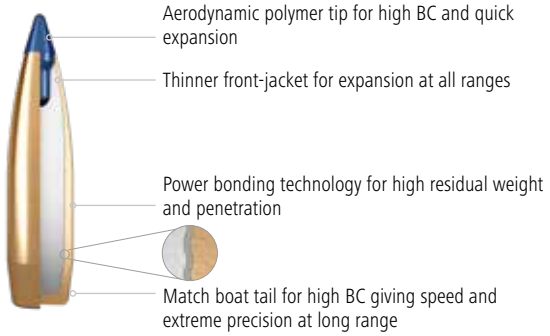
NEW

BONDSTRIKE™

Extreme Long Range

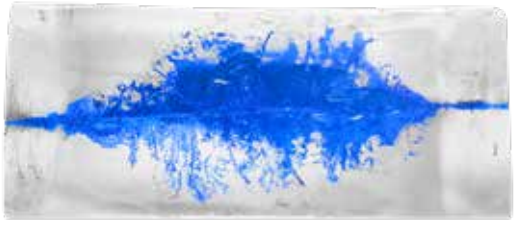
LONG RANGE · BOAT TAIL · BONDED BULLET · ENHANCED PENETRATION

BONDSTRIKE™ Extreme is specially developed for extreme precision and performance from standard to extreme long-range hunting distances. Our power bonding technology guarantees high residual weight in combination with deep penetration in the animal and the high BC sets a new standard among hunting bullets that is directly comparable to high performing match ammunition.



Its advantages at a glance:

- Extreme long-range hunting bullet for medium and large game
- A winning combination of streamlined polymer tip and match style boat tail
- Best in class BC and Extreme Long Range knock down power
- Extreme accuracy and terminal performance at all distances



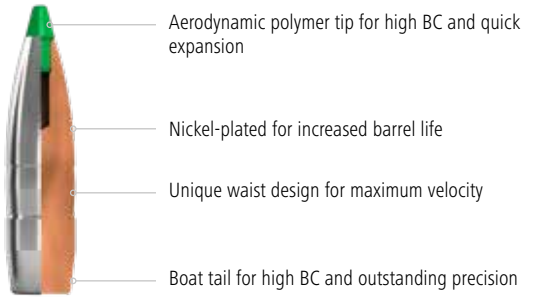
Simulated wound cavity in ballistic gelatin - BONDSTRIKE Extreme at 450 m

ECOSTRIKE™

Rethinking Impact

LEAD FREE · ENHANCED PENETRATION · FOR ALL CLIMATES · BOAT TAIL

ECOSTRIKE™ brings the latest in bullet technology into a lead-free projectile. Our copper bullet delivers deep penetration, almost 100% weight retention and a high BC. ECOSTRIKE™ is the lead-free choice for hunting medium and large game due to its excellent ability to expand at both low and high velocities.

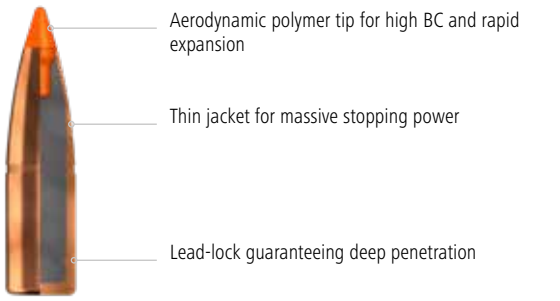


TIPSTRIKE™

Instant Stop

FOR ALL CLIMATES · ENHANCED PENETRATION · BATTUE HUNTING

TIPSTRIKE™ is developed for instant stopping power and penetration deep enough to reach vital organs of big game. Our construction of the bullet jacket together with the mechanical lead-lock ensures devastating shock effect when the hunt is fast and challenging. TIPSTRIKE™ is an outstanding bullet for shots where an immediate stop is crucial.



norma®

DEDICATED SINCE 1902

OUR NEW
PRODUCT LINE 2020

ORYX™
SILENCER

OPTIMIZED FOR SILENCERS AND SHORT BARRELS

Don't miss out on speed and effect when using your silencer – Norma introduces new silencer optimized ammunition for 2020

- Loaded with ORYX™, our toughest and most all-round bullet on the market
- Reduced muzzle flash
- Don't suffer from lower velocity and effect due to a short barrel compared to standard ammunition
- Lower muzzle pressure will extend the lifetime of your silencer

norma
SILENCER series

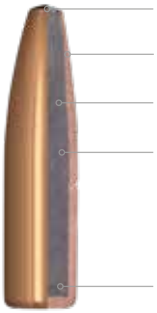
www.norma-ammunition.com

DH Dedicated Hunting

ORYX™

FOR ALL CLIMATES · ENHANCED PENETRATION · BONDED BULLET

ORYX™ is one of our most reliable and well-known hunting bullets. At Norma we have developed a unique bonding method fusing the core and the jacket giving the bullet unique characteristics. A carefully engineered jacket, combined with a bonded core, yields a bullet that will not fragment even if heavy bone is hit, but will fully expand to a large diameter even when only soft tissue is encountered. The construction of the ORYX™ bullet allows a relatively thin jacket. Stringent demands on the material, measurement and weight combined with the construction and manufacturing process, ensures superior accuracy.



Its advantages at a glance:

- Devastating penetration
- Limited meat destruction
- Magnificent weight retention

ORYX™ at 100 m

NEW ORYX™ SILENCER

As the use of silencers increases in popularity, we see more and more shorter barrels on the market. But what few people know is that a shorter barrel drastically reduces the effect and precision of the ammunition used. Standard rifle ammunition today is optimized for barrel lengths of 61 cm while many barrels today only measure around 50 cm. In reality this means that the difference in length makes it impossible for the load to fully burn out before the bullet leaves the muzzle, dramatically shortening the life of the silencer and reducing the effect of the ammunition.

Its advantages at a glance:

- Our new Norma Silencer Series is optimized for barrel lengths of 50 cm and it is loaded with our standard ORYX™ bullet.
- A reduced muzzle flash
- Substantially increased velocity and effect compared to standard ammunition in short barrels
- Lower muzzle pressure = extended lifetime for silencer

	Bullet / Item No.	Weight Gram / Grains	Barrel length mm / BC-Value 1)	V 2) / E	0m	100m	200m	300m	Zero range m	Height of trajectory above line of sighted in at meters for sight 40 mm above bore: 50m	80m	100m	150m	200m	300m	Ctg/box	
	6.5x55 SE																
NEW	**Oryx**	10.1	500	V[m/sec]	780	697	619	546	100	3	7	⊕	-53	-162	-581	20	
	20166432	156	0.348	E[J]	3074	2453	1934	1507	200	43	72	81	69	⊕	-338		
	.308 Win.																
NEW	**Oryx**	10.7	500	V[m/sec]	820	731	647	569	100	0	5	⊕	-46	-144	-523	20	
	20177302	165	0.333	E[J]	3599	2857	2240	1733	200	36	63	72	62	⊕	-307		
	.30-06																
NEW	**Oryx**	11.7	500	V[m/sec]	820	736	657	582	100	0	5	⊕	-45	-141	-510	20	
	20177282	180	0.354	E[J]	3935	3168	2523	1986	200	36	62	71	61	⊕	-298		
	8x57 IS																
NEW	**Oryx**	12.7	500	V[m/sec]	765	679	598	524	100	4	7	⊕	-57	-173	-622	20	
	20180342	196	0.331	E[J]	3718	2926	2271	1741	200	47	77	87	73	⊕	-362		
	9.3x62																
NEW	**Oryx**	18.5	500	V[m/sec]	715	638	565	498	100	7	10	⊕	-67	-202	-711	20	
	20193232	286	0.356	E[J]	4731	3761	2955	2299	200	57	90	101	84	⊕	-408		

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

BULLET BEHAVIOUR & CHARACTERISTICS

Reduce the factors of uncertainty by planning ahead, before pulling the trigger! At the moment of truth 0,4208 seconds later, you expect a perfect ending. Choosing the most suitable bullet for your shooting situation, bids for top satisfaction. Energy is one way of comparing the bullets. Efficiency also depends on other factors, like the bullet expansion, the bullet construction, its material and how much energy leaves at a possible exit. For more information on a specific bullet, visit us online at www.norma-ammunition.com

BONDSTRIKE

Effective at all ranges

Bullet weight		Calibre	Impact energy
Grain	Gram	30-06 Spring	>2000 J to 570 m
180	11.7		

ECOSTRIKE

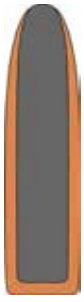
The modern lead-free choice

Bullet weight		Calibre	Impact energy
Grain	Gram	30-06 Spring	>2000 J to 370 m
150	9.7		

TIPSTRIKE

The instant game stopper

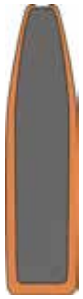
Bullet weight		Calibre	Impact energy
Grain	Gram	30-06 Spring	>2000 J to 390 m
170	11.0		



ORYX

The bonded allround favourite

Bullet weight		Calibre	Impact energy
Grain	Gram	30-06 Spring	>2000 J to 290 m
180	11.7		



VULKAN

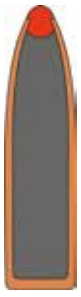
Protected point with instant kill

Bullet weight		Calibre	Impact energy
Grain	Gram	30-06 Spring	>2000 J to 270 m
180	11.7		

ALASKA

Round nose - a time proven classic

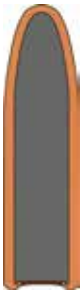
Bullet weight		Calibre	Impact energy
Grain	Gram	30-06 Spring	>2000 J to 230 m
180	11.7		



PLASTIC POINT

Aggressive expansion

Bullet weight		Calibre	Impact energy
Grain	Gram	30-06 Spring	>2000 J to 290 m
180	11.7		



FULL METAL JACKET

High quality full metal jacket
Non-expanding

Bullet weight		Calibre	Impact energy
Grain	Gram	30-06 Spring	>2000 J to 310 m
150	9.7		

SOFTPOINT

Efficient and allround

Bullet weight		Calibre	Impact energy
Grain	Gram	30-06 Spring	>2000 J to 310 m
130	8.4		

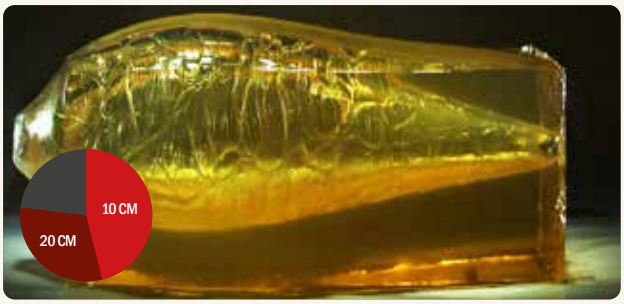
IMPACT ENERGY - EXIT ENERGY = ENERGY RELEASED

The power the bullet will make use of, is what has been released inside the game. Thus, there is more to take into consideration than merely the impact energy. A great expansion releases more energy in the game, than a non-expanding bullet, if given the same circumstances.
To illustrate realistic bullet performance on impact, we present the energy transfer on 10 and 20 cm depth in ballistic gelatin. This tells you how efficiently and how immediately the bullets of different constructions release.

The pie charts show the percentage of energy release up to 10 cm and 20 cm into the ballistic gelatin and at the exit, compared to the impact energy at entry. The four bullets compared are Oryx (11.7 g/180 gr), BONDSTRIKE Extreme (11.7 g/180 gr), TIPSTRIKE (11.0 g/170 gr) and ECOSTRIKE (9.7 g/150 gr). The caliber chosen for the test, is the well-known 30-06 Springfield.
In the comparison on that page, you find the test results of bullet impact on 80 m or 450 m.
We make the bullets - you make the choice!

80 METERS

ORYX™



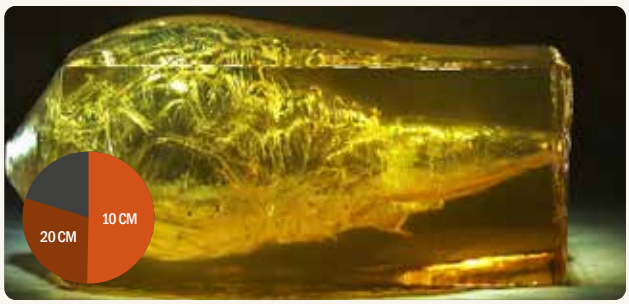
IMPACT ENERGY: 3326 J
EXIT ENERGY: 187 J
ENERGY TRANSFERRED: 3139 J

ENERGY TRANSFERRED AT:
10 CM: 1456 J
20 CM: 2432 J

RETAINED WEIGHT: 99 %

80 METERS

TIPSTRIKE™ Instant Stop



IMPACT ENERGY: 3476 J
EXIT ENERGY: 79 J
ENERGY TRANSFERRED: 3397 J

ENERGY TRANSFERRED AT:
10 CM: 2161 J
20 CM: 2952 J

RETAINED WEIGHT: 68 %

450 METERS

BONDSTRIKE™ Extreme Long Range

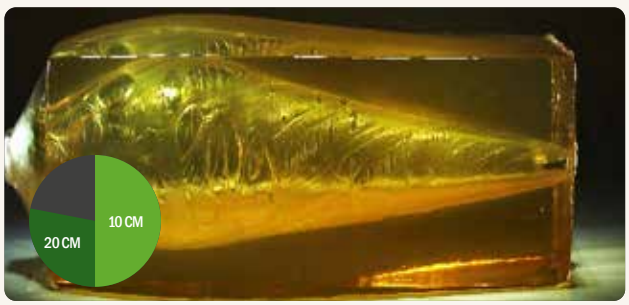
IMPACT ENERGY: 3066 J
EXIT ENERGY: 183 J
ENERGY TRANSFERRED: 2884 J

ENERGY TRANSFERRED AT:
10 CM: 1504 J
20 CM: 2375 J

RETAINED WEIGHT: 90 %

80 METERS

ECOSTRIKE™ Rethinking Impact



IMPACT ENERGY: 3414 J
EXIT ENERGY: 222 J
ENERGY TRANSFERRED: 3192 J

ENERGY TRANSFERRED AT:
10 CM: 1588 J
20 CM: 2480 J

RETAINED WEIGHT: 99 %

Bullet	Weight Gram	Barrel length mm	V					Zero range in m	Height of trajectory above line of sighted in at meters for sight 40 mm above bore						
Item No.	Grains	BC-Value[1]	E[2]	0m	100m	200m	300m		50m	80m	100m	150m	200m	300m	Ctg/box
									**.17 Rem.**						
V-MAX®	1.3	610	V[m/sec]	1280	1065	882	721	100	-11	-2	⊕	-11	-48	-223	20
20143022	20	0.185	E[J]	1065	738	506	338	200	1	17	24	25	⊕	-152	
									**.204 Ruger**						
V-MAX®	2.6	610	V[m/sec]	1250	1063	900	756	100	-11	-2	⊕	-11	-48	-218	20
20156502	40	0.210	E [J]	2032	1470	1055	743	200	1	17	24	25	⊕	-146	
									**.222 Rem.**						
V-MAX®	2.6	610	V[m/sec]	1050	881	732	598	100	-7	1	⊕	-25	-88	-362	20
20157052	40	0.200	E[J]	1434	1010	697	465	200	15	36	44	41	⊕	-230	
Softpoint	3.2	610	V[m/sec]	975	803	650	516	100	-4	2	⊕	-34	-115	-467	20
20157112	50	0.185	E[J]	1522	1031	677	426	200	24	48	57	52	⊕	-295	
Tipstrike Varmint	3.5	610	V[m/sec]	940	812	694	587	100	-4	3	⊕	-33	-110	-426	20
20157142	54	0.245	E[J]	1547	1153	844	604	200	24	47	55	49	⊕	-261	
FMJ	3.6	610	V[m/sec]	850	710	584	473	100	0	6	⊕	-49	-157	-608	20
20157222	55	0.209	E[J]	1301	907	613	403	200	40	69	79	69	⊕	-371	
Oryx	3.6	610	V[m/sec]	930	764	616	487	100	-3	4	⊕	-40	-131	-526	20
20157042	55	0.185	E[J]	1540	1038	675	423	200	30	56	66	59	⊕	-330	
Softpoint	4.0	610	V[m/sec]	880	740	613	500	100	-1	5	⊕	-44	-142	-549	20
20157162	62	0.214	E[J]	1549	1094	751	501	200	34	61	71	62	⊕	-337	
									**.223 Rem.**						
V-MAX®	2.6	610	V[m/sec]	1140	960	802	661	100	-9	-1	⊕	-18	-68	-290	20
20157382	40	0.200	E[J]	1690	1198	836	567	200	8	27	34	33	⊕	-189	
Softpoint	3.4	610	V[m/sec]	980	843	720	607	100	-5	2	⊕	-29	-99	-390	20
20157172	53	0.237	E[J]	1633	1210	881	626	200	20	41	50	45	⊕	-241	
Tipstrike Varmint	3.5	610	V[m/sec]	980	848	727	617	100	-5	2	⊕	-29	-98	-383	20
20157352	54	0.245	E[J]	1681	1258	926	667	200	19	41	49	44	⊕	-236	
Oryx	3.6	610	V[m/sec]	950	781	631	500	100	-4	3	⊕	-37	-123	-498	20
20157192	55	0.185	E[J]	1607	1087	710	446	200	27	52	62	56	⊕	-313	
									**.22 - 250 Rem.**						
Softpoint	3.4	610	V[m/sec]	1130	977	840	716	100	-9	-1	⊕	-17	-64	-267	20
20157332	53	0.237	E[J]	2172	1623	1201	873	200	7	25	32	31	⊕	-171	
Tipstrike Varmint	3.5	610	V[m/sec]	1090	946	817	700	100	-8	0	⊕	-19	-70	-289	20
20157372	54	0.245	E[J]	2080	1568	1170	857	200	10	28	35	33	⊕	-183	
Oryx	3.6	610	V[m/sec]	1100	912	747	602	100	-8	0	⊕	-22	-80	-338	20
20157342	55	0.185	E[J]	2155	1481	995	644	200	12	32	40	38	⊕	-218	
									**5.6 x 52 R**						
Softpoint	4.6	610	V[m/sec]	850	739	637	544	100	-1	5	⊕	-44	-140	-524	20
20156042	71	0.268	E[J]	1662	1258	934	681	200	34	61	70	61	⊕	-314	
									**6XC**						
Ballistic Tip	6.2	610	V[m/sec]	900	818	741	668	100	-3	3	⊕	-33	-107	-394	20
20160212	95	0.379	E[J]	2496	2062	1690	1373	200	23	46	54	47	⊕	-233	
Oryx	6.5	610	V[m/sec]	900	781	671	571	100	-3	3	⊕	-37	-121	-463	20
20160222	100	0.257	E[J]	2634	1982	1465	1060	200	27	52	61	54	⊕	-281	

V-MAX® is a registered trademark of Hornady Manufacturing Company

Bullet	Weight Gram	Barrel length mm	V					Zero range in m	Height of trajectory above line of sighted in at meters for sight 40 mm above bore						
Item No.	Grains	BC-Value[1]	E[2]	0m	100m	200m	300m		50m	80m	100m	150m	200m	300m	Ctg/box
.243 Win.															
V-MAX®	3.8	610	V[m/sec]	1200	1047	911	787	100	-10	-2	⊕	-12	-50	-219	20
20160352	58	0.250	E[J]	2701	2056	1556	1163	200	2	19	25	25	⊕	-144	
Tipstrike Varmint	4.9	610	V[m/sec]	1050	946	849	759	100	-8	0	⊕	-20	-70	-277	20
20160052	76	0.332	E[J]	2702	2192	1768	1414	200	10	28	35	33	⊕	-172	
Softpoint	6.5	610	V[m/sec]	910	790	680	579	100	-3	3	⊕	-36	-119	-452	20
20160032	100	0.257	E[J]	2693	2028	1502	1088	200	27	51	59	53	⊕	-274	
Oryx	6.5	610	V[m/sec]	910	792	683	583	100	-2	4	⊕	-41	-130	-492	20
20160332	100	0.257	E[J]	2693	2038	1516	1105	200	31	56	65	57	⊕	-297	
.257 Weatherby Mag.															
Softpoint	6.5	660	V[m/sec]	1070	935	812	700	100	-8	0	⊕	-20	-73	-296	20
20166082	100	0.256	E[J]	3723	2841	2146	1594	200	10	29	36	34	⊕	-186	
6.5 x 51 R Arisaka (6.5 Japanese)															
Alaska	10.1	610	V[m/sec]	630	553	483	421	100	15	15	⊕	-96	-283	-989	20
20166202	156	0.326	E[J]	2005	1545	1178	897	200	86	128	141	117	⊕	-565	
6.5 Carcano															
Alaska	10.1	610	V[m/sec]	710	627	551	481	100	8	10	⊕	-70	-211	-747	20
20166212	156	0.326	E[J]	2547	1989	1533	1170	200	60	94	105	88	⊕	-431	
6.5 Creedmoor															
Scirocco II	8.4	610	V[m/sec]	850	797	746	697	100	-2	4	⊕	-37	-115	-401	20
20166302	130	0.571	E[J]	3036	2669	2338	2040	200	27	50	57	49	⊕	-234	
NEW **Bondstrike Extreme**	9.3	610	V[m/sec]	835	786	739	694	100	-1	4	⊕	-38	-118	-415	20
20166402	143	0.629	E[J]	3233	2867	2535	2234	200	28	51	59	51	⊕	-238	
6.5 x 55 SE															
Ballistic Tip	7.8	610	V[m/sec]	860	789	722	658	100	-2	4	⊕	-37	-118	-424	20
20165222	120	0.430	E[J]	2886	2431	2035	1691	200	28	51	59	51	⊕	-248	
Partition	9.1	610	V[m/sec]	820	757	696	638	100	0	5	⊕	-43	-132	-466	20
20165592	140	0.467	E[J]	3061	2606	2206	1855	200	33	58	66	56	⊕	-269	
NEW **Bondstrike Extreme**	9.3	610	V[m/sec]	830	782	735	690	100	-1	4	⊕	-39	-120	-421	20
20166382	143	0.629	E[J]	3194	2832	2504	2205	200	29	52	60	51	⊕	-241	
Alaska	10.1	610	V[m/sec]	780	677	583	497	100	3	7	⊕	-57	-176	-643	20
20165522	156	0.276	E[J]	3074	2319	1717	1250	200	47	78	88	75	⊕	-379	
NEW **Oryx**	10.1	500	V[m/sec]	780	697	619	546	100	3	7	⊕	-53	-162	-581	20
20166432	156	0.348	E[J]	3074	2453	1934	1507	200	43	72	81	69	⊕	-338	
Oryx	10.1	610	V[m/sec]	780	698	621	550	100	2	7	⊕	-52	-161	-578	20
20165622	156	0.348	E[J]	3074	2463	1951	1527	200	42	71	81	69	⊕	-336	
Vulkan	10.1	610	V[m/sec]	780	700	624	554	100	3	7	⊕	-53	-161	-576	20
20165562	156	0.354	E[J]	3074	2473	1967	1548	200	43	71	81	68	⊕	-334	
6.5 - 284 Norma															
NEW **Bondstrike Extreme**	9.3	610	V[m/sec]	880	830	781	735	100	-3	3	⊕	-32	-102	-364	20
20166422	143	0.629	E[J]	3591	3193	2831	2502	200	22	44	51	44	⊕	-211	
Oryx	10.1	610	V[m/sec]	850	764	683	607	100	-1	4	⊕	-41	-129	-469	20
20166062	156	0.348	E[J]	3650	2949	2359	1864	200	31	56	64	56	⊕	-276	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Bullet	Weight Gram	Barrel length mm	V					Zero range	Height of trajectory above line of sighted in at meters for sight 40 mm above bore						
Item No.	Grains	BC-Value[1]	E[2]	0m	100m	200m	300m	in m	50m	80m	100m	150m	200m	300m	Ctg/box
															
.270 Win.															
V-MAX®	7.1	610	V[m/sec]	980	891	808	729	100	-6	1	⊕	-25	-84	-319	20
20169402	110	0.370	E[J]	3425	2831	2326	1895	200	15	35	42	38	⊕	-193	
Softpoint	8.4	610	V[m/sec]	957	867	782	702	100	-5	2	⊕	-28	-91	-343	20
20169022	130	0.359	E[J]	3848	3155	2569	2073	200	18	38	46	41	⊕	-207	
Tipstrike	9.1	610	V[m/sec]	940	873	809	748	100	-5	2	⊕	-27	-89	-328	20
20169292	140	0.480	E[J]	4022	3468	2979	2546	200	17	37	45	40	⊕	-195	
Oryx	9.7	610	V[m/sec]	870	788	711	639	100	-1	4	⊕	-38	-121	-436	20
20169012	150	0.373	E[J]	3673	3015	2455	1979	200	29	49	60	52	⊕	-255	
Vulkan	10.1	610	V[m/sec]	870	781	697	619	100	-3	4	⊕	-38	-121	-444	20
20169412	156	0.340	E[J]	3824	3080	2456	1934	200	28	52	60	53	⊕	-263	
															
.270 WSM															
Ballistic Tip	8.4	610	V[m/sec]	1000	922	849	779	100	-6	1	⊕	-23	-78	-292	20
20169252	130	0.433	E[J]	4202	3573	3027	2551	200	14	30	39	35	⊕	-175	
Tipstrike	9.1	610	V[m/sec]	965	897	932	770	100	-6	1	⊕	-25	-82	-307	20
20169532	140	0.480	E[J]	4239	3659	3148	2696	200	15	34	41	37	⊕	-183	
Oryx	9.7	610	V[m/sec]	950	863	782	705	100	-4	2	⊕	-29	-94	-349	20
20169322	150	0.373	E[J]	4379	3617	2968	2415	200	20	37	47	42	⊕	-208	
															
.270 Weatherby Mag.															
Softpoint	8.4	660	V[m/sec]	1000	907	821	739	100	-6	1	⊕	-23	-80	-305	20
20169502	130	0.359	E[J]	4202	3458	2829	2295	200	13	33	40	36	⊕	-186	
Oryx	9.7	660	V[m/sec]	970	882	800	722	100	-6	1	⊕	-26	-87	-327	20
20169512	150	0.373	E[J]	4556	3771	3102	2532	200	16	36	43	39	⊕	-197	
															
7 x 57 R															
Oryx	10.1	610	V[m/sec]	795	708	626	550	100	2	6	⊕	-51	-157	-565	20
20170032	156	0.330	E[J]	3193	2531	1981	1530	200	41	75	80	67	⊕	-330	
Tipstrike	10.4	610	V[m/sec]	800	743	688	636	100	1	5	⊕	-45	-138	-484	20
20170742	160	0.510	E[J]	3329	2871	2463	2102	200	35	61	69	59	⊕	-277	
															
7 x 57															
Oryx	10.1	610	V[m/sec]	805	717	635	558	100	1	6	⊕	-49	-152	-548	20
20170012	156	0.330	E[J]	3274	2598	2036	1575	200	39	67	76	65	⊕	-321	
															
7 mm - 08 Rem.															
Ballistic Tip	9.1	610	V[m/sec]	860	797	737	680	100	-1	4	⊕	-38	-118	-414	20
20170682	140	0.485	E[J]	3367	2893	2474	2104	200	28	48	58	50	⊕	-239	
Tipstrike	10.4	610	V[m/sec]	820	762	706	653	100	0	5	⊕	-42	-129	-456	20
20170362	160	0.510	E[J]	3498	3021	2596	2220	200	32	56	65	55	⊕	-262	
															
7 mm Blaser Mag.															
Oryx	10.1	660	V[m/sec]	928	829	740	657	100	-4	3	⊕	-32	-103	-384	20
20170872	156	0.330	E[J]	4323	3476	2769	2179	200	22	44	52	46	⊕	-232	

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Bullet	Weight Gram	Barrel length mm	V					Zero range	Height of trajectory above line of sighted in at meters for sight 40 mm above bore						
Item No.	Grains	BC-Value[1]	E[2]	0m	100m	200m	300m	in m	50m	80m	100m	150m	200m	300m	Ctg/box
									7 x 65 R						
LEAD FREE **Ecostrike**	9.1	610	V[m/sec]	860	792	726	644	100	-3	4	⊕	-37	-116	-418	20
20171192	140	0.443	E[J]	3367	2852	2404	2009	200	27	50	58	50	⊕	-244	
Oryx	10.1	610	V[m/sec]	830	741	657	579	100	-1	5	⊕	-45	-140	-508	20
20170632	156	0.330	E[J]	3480	2771	2179	1691	200	35	61	70	60	⊕	-299	
Tipstrike	10.4	610	V[m/sec]	850	791	734	680	100	-2	4	⊕	-38	-117	-417	20
20171212	160	0.510	E[J]	3759	3523	2803	2403	200	28	51	59	50	⊕	-241	
Plastic point	11.0	610	V[m/sec]	800	722	649	580	100	1	6	⊕	-48	-148	-529	20
20170282	170	0.373	E[J]	3522	2872	2319	1853	200	38	65	74	63	⊕	-308	
Vulkan	11.0	610	V[m/sec]	810	728	650	578	100	1	6	⊕	-47	-146	-526	20
20170292	170	0.353	E[J]	3610	2913	2326	1836	200	37	64	73	62	⊕	-306	
Oryx	11.0	610	V[m/sec]	810	720	637	559	100	1	6	⊕	-48	-150	-544	20
20170222	170	0.324	E[J]	3610	2856	2231	1719	200	39	66	75	64	⊕	-318	
									7 mm Weatherby Mag.						
Oryx	10.1	660	V[m/sec]	940	798	754	670	100	-4	2	⊕	-30	-98	-370	20
20171062	156	0.330	E[J]	4464	3596	2871	2266	200	20	41	49	44	⊕	-223	
Tipstrike	10.4	660	V[m/sec]	950	886	826	768	100	-5	1	⊕	-26	-85	-314	20
20171232	160	0.510	E[J]	4695	4088	3547	3066	200	16	35	42	38	⊕	-239	
Oryx	11.0	660	V[m/sec]	910	814	725	641	100	-3	3	⊕	-34	-109	-405	20
20171072	170	0.324	E[J]	4557	3647	2889	2260	200	24	46	54	48	⊕	-242	
									.280 Rem.						
Oryx	10.1	610	V[m/sec]	850	759	674	595	100	-1	4	⊕	-42	-131	-479	20
20171052	156	0.330	E[J]	3650	2912	2297	1788	200	32	57	66	57	⊕	-282	
Tipstrike	10.4	610	V[m/sec]	850	791	734	680	100	-2	4	⊕	-38	-117	-417	20
20171222	160	0.510	E[J]	3759	3523	2803	2403	200	28	51	59	50	⊕	-241	
Vulkan	11.0	610	V[m/sec]	790	709	632	561	100	2	6	⊕	-51	-156	-559	20
20170512	170	0.353	E[J]	3434	2764	2201	1733	200	41	69	78	66	⊕	-325	
Plastic point	11.0	610	V[m/sec]	825	746	671	601	100	-1	5	⊕	-44	-136	-490	20
20170602	170	0.373	E[J]	3745	3062	2481	1989	200	33	59	68	58	⊕	-286	
									7 x 64						
LEAD FREE **Ecostrike**	9.1	610	V[m/sec]	910	839	772	707	100	-4	2	⊕	-30	-99	-363	20
20171182	140	0.443	E[J]	3770	3204	2710	2277	200	27	49	58	44	⊕	-215	
Oryx	10.1	610	V[m/sec]	850	759	674	595	100	-1	4	⊕	-42	-131	-479	20
20170532	156	0.330	E[J]	3650	2912	2297	1788	200	32	57	66	57	⊕	-282	
Tipstrike	10.4	610	V[m/sec]	900	839	780	724	100	-4	3	⊕	-31	-10	-361	20
20171152	160	0.510	E[J]	4214	3658	3164	2723	200	21	42	50	44	⊕	-212	
Vulkan	11.0	610	V[m/sec]	830	746	668	594	100	0	5	⊕	-44	-137	-495	20
20170182	170	0.353	E[J]	3791	3066	2454	1942	200	34	60	68	59	⊕	-290	
Plastic point	11.0	610	V[m/sec]	830	752	678	608	100	0	5	⊕	-43	-134	-483	20
20170192	170	0.378	E[J]	3791	3110	2529	2036	200	33	59	67	58	⊕	-282	
Oryx	11.0	610	V[m/sec]	840	749	663	583	100	-1	5	⊕	-43	-136	-497	20
20170202	170	0.324	E[J]	3883	3083	2419	1872	200	34	59	68	59	⊕	-293	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7 mm Rem. Mag.

	Bullet	Weight Gram	Barrel length mm	V					Zero range	Height of trajectory above line of sighted in at meters for sight 40 mm above bore						
	Item No.	Grains	BC-Value[1]	E[2]	0m	100m	200m	300m	in m	50m	80m	100m	150m	200m	300m	Ctg/box
LEAD FREE	**TSX**	9.1	660	V[m/sec]	950	868	791	718	100	-5	2	⊕	-27	-91	-339	20
	20170542	140	0.394	E[J]	4108	3430	2847	2346	200	18	38	45	41	⊕	203	
LEAD FREE	**Ecostrike**	9.1	660	V[m/sec]	950	877	808	742	100	-6	1	⊕	-26	-87	-325	20
	20171172	140	0.443	E[J]	4108	3500	2969	2504	200	16	36	43	39	⊕	-194	
	Oryx	10.1	660	V[m/sec]	900	806	718	636	100	-3	3	⊕	-35	-112	-415	20
	20170472	156	0.330	E[J]	4092	3281	2605	2041	200	25	48	56	49	⊕	-247	
	Tipstrike	10.4	660	V[m/sec]	920	858	798	741	100	-5	2	⊕	-29	-94	-342	20
	20170142	160	0.510	E[J]	4403	3827	3314	2857	200	19	40	47	41	⊕	-201	
	Vulkan	11.0	660	V[m/sec]	900	812	729	651	100	-3	3	⊕	-34	-109	-404	20
	20170242	170	0.353	E[J]	4457	3627	2925	2334	200	24	47	55	48	⊕	-240	
	Plastic point	11.0	660	V[m/sec]	900	818	740	666	100	-3	3	⊕	-33	-107	-394	20
	20170272	170	0.378	E[J]	4457	3677	3012	2444	200	24	46	54	47	⊕	-233	
	Oryx	11.0	660	V[m/sec]	880	786	698	616	100	-2	4	⊕	-38	-120	-442	20
	20170232	170	0.324	E[J]	4261	3398	2680	2086	200	28	52	60	52	⊕	-262	

7.5 x 55 Swiss

	Oryx	11.7	610	V[m/sec]	820	737	659	586	100	0	5	⊕	-45	-141	-509	20
	20174722	180	0.354	E[J]	3935	3181	2545	2013	200	36	62	71	61	⊕	-297	

7.62 x 54 R

	Alaska	11.7	610	V[m/sec]	785	675	574	484	100	4	8	⊕	-58	-179	-660	20
	20175552	180	0.257	E[J]	3606	2666	1929	1371	200	49	76	90	77	⊕	-391	

.308 Win.

LEAD FREE	**Ecostrike**	9.7	610	V[m/sec]	860	788	719	654	100	-2	4	⊕	-37	-118	-425	20
	20174212	150	0.420	E[J]	3589	3012	2511	2078	200	27	51	59	51	⊕	-249	
NEW	**Oryx**	10.7	500	V[m/sec]	820	731	647	569	100	0	5	⊕	-46	-144	-523	20
	20177302	165	0.333	E[J]	3599	2857	2240	1733	200	36	63	72	62	⊕	-307	
	Oryx	10.7	610	V[m/sec]	835	746	663	585	100	1	5	⊕	-45	-139	-503	20
	20174712	165	0.333	E[J]	3728	2978	2351	1833	200	35	61	70	60	⊕	-294	
	A-Frame	10.7	610	V[m/sec]	823	743	667	596	100	-1	5	⊕	-44	-138	-496	20
	20176122	165	0.367	E[J]	3622	2951	2381	1901	200	34	60	69	59	⊕	-290	
	Tipstrike	11.0	610	V[m/sec]	800	736	675	617	100	0	5	⊕	-46	-141	-497	20
	20174352	170	0.454	E[J]	3522	2981	2507	2093	200	36	62	72	60	⊕	-286	
	Bondstrike Extreme	11.7	610	V[m/sec]	800	752	707	662	100	0	5	⊕	-44	-133	-464	20
	20176412	180	0.615	E[J]	3746	3314	2922	2566	200	34	59	67	56	⊕	-263	
	Plastic point	11.7	610	V[m/sec]	796	717	643	573	100	2	6	⊕	-49	-152	-541	20
	20176282	180	0.366	E[J]	3708	3011	2420	1925	200	39	67	79	64	⊕	-314	
	Alaska	11.7	610	V[m/sec]	796	685	583	492	100	-3	7	⊕	-55	-171	-634	20
	20176362	180	0.257	E[J]	3708	2746	1990	1415	200	45	75	86	73	⊕	-378	
	Vulkan	11.7	610	V[m/sec]	796	705	620	541	100	2	6	⊕	-51	-153	-548	20
	20176602	180	0.315	E[J]	3708	2908	2250	1716	200	42	70	79	68	⊕	-336	
	Oryx	11.7	610	V[m/sec]	796	715	638	567	100	2	6	⊕	-50	-153	-548	20
	20174732	180	0.354	E[J]	3708	2989	2384	1879	200	40	67	77	65	⊕	-319	

Bullet Item No.	Weight Gram Grains	Barrel length mm BC-Value[1]	V E[2]	0m	100m	200m	300m	Zero range in m	Height of trajectory above line of sighted in at meters for sight 40 mm above bore 50m	80m	100m	150m	200m	300m	Ctg/box
															
LEAD FRE															
Ecostrike	9.7	610	V[m/sec]	900	826	755	689	100	-4	3	⊕	-32	-103	-379	20
20174242	150	0.420	E[J]	3930	3309	2769	2300	200	22	44	52	46	⊕	-224	
Oryx	10.7	610	V[m/sec]	900	807	720	639	100	-2	3	⊕	-36	-113	-417	20
20174702	165	0.333	E[J]	4331	3483	2772	2180	200	26	49	57	49	⊕	-247	
Tipstrike	11.0	610	V[m/sec]	850	784	720	660	100	-2	4	⊕	-38	-119	-428	20
20174342	170	0.454	E[J]	3975	3379	2855	2397	200	28	51	60	52	⊕	-249	
Bondstrike Extreme	11.7	610	V[m/sec]	840	791	744	698	100	-2	4	⊕	-38	-117	-411	20
20176422	180	0.615	E[J]	4130	3662	3238	2853	200	28	51	58	50	⊕	-236	
A-Frame	11.7	610	V[m/sec]	823	749	680	613	100	-1	5	⊕	-43	-134	-482	20
20175182	180	0.400	E[J]	3964	3286	2702	2202	200	33	59	67	58	⊕	-280	
Alaska	11.7	610	V[m/sec]	823	710	606	512	100	1	6	⊕	-49	-157	-583	20
20176482	180	0.257	E[J]	3964	2948	2148	1533	200	40	68	78	68	⊕	-349	
Plastic point	11.7	610	V[m/sec]	823	743	667	596	100	1	6	⊕	-46	-141	-503	20
20176532	180	0.366	E[J]	3964	3228	2603	2077	200	36	62	70	60	⊕	-292	
Vulkan	11.7	610	V[m/sec]	823	730	643	563	100	1	6	⊕	-48	-147	-533	20
20176592	180	0.315	E[J]	3964	3119	2422	1854	200	38	65	74	63	⊕	-312	
NEW **Oryx**	11.7	500	V[m/sec]	820	736	657	582	100	0	5	⊕	-45	-141	-510	20
20177282	180	0.354	E[J]	3935	3168	2523	1986	200	36	62	71	61	⊕	-298	
Oryx	11.7	610	V[m/sec]	823	740	662	589	100	0	5	⊕	-45	-140	-505	20
20174742	180	0.354	E[J]	3964	3206	2565	2030	200	35	61	70	60	⊕	-295	
Oryx	13.0	610	V[m/sec]	800	715	635	560	100	1	6	⊕	-49	-152	-549	20
20176772	200	0.338	E[J]	4162	3321	2618	2039	200	39	67	76	65	⊕	-321	
															
LEAD FRE															
Ecostrike	9.7	610	V[m/sec]	990	911	836	765	100	-7	1	⊕	-23	-78	-296	20
20174222	150	0.420	E[J]	4756	4024	3390	2839	200	13	32	39	36	⊕	-180	
Oryx	10.7	610	V[m/sec]	970	872	781	696	100	-5	2	⊕	-28	-92	-345	20
20174682	165	0.333	E[J]	5031	4067	3262	2588	200	18	39	46	41	⊕	-207	
Tipstrike	11.0	610	V[m/sec]	975	902	833	768	100	-6	1	⊕	-24	-80	-303	20
20174022	170	0.454	E[J]	5231	4479	3821	3243	200	14	33	40	37	⊕	-182	
Bondstrike Extreme	11.7	610	V[m/sec]	940	887	837	788	100	-5	1	⊕	-26	-85	-310	20
20175832	180	0.615	E[J]	5171	4608	4097	3632	200	16	35	42	38	⊕	-183	
Oryx	11.7	610	V[m/sec]	900	812	730	653	100	-3	3	⊕	-34	-109	-403	20
20174752	180	0.354	E[J]	4741	3862	3120	2493	200	24	47	55	48	⊕	-240	
															
Oryx	11.7	660	V[m/sec]	900	812	730	653	100	-3	3	⊕	-34	-109	-403	20
20174912	180	0.354	E[J]	4741	3862	3120	2493	200	24	47	55	48	⊕	-240	

.30-06

.300 WSM

.308 Norma Mag.

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

.300 Win. Mag.

Bullet	Weight Gram	Barrel length mm	V					Zero range in m	Height of trajectory above line of sighted in at meters for sight 40 mm above bore						
Item No.	Grains	BC-Value[1]	E[2]	0m	100m	200m	300m		50m	80m	100m	150m	200m	300m	Ctg/box
TSX	9.7	660	V[m/sec]	980	902	829	760	100	-5	1	⊕	-25	-83	-308	20
20175462	150	0.369	E[J]	4660	3952	3337	2802	200	16	32	41	37	⊕	-184	
Ecostrike	9.7	660	V[m/sec]	1000	920	845	773	100	-7	1	⊕	-22	-76	-288	20
20174232	150	0.420	E[J]	4852	4107	3462	2902	200	12	31	38	35	⊕	-175	
Oryx	10.7	660	V[m/sec]	975	877	785	700	100	-5	2	⊕	-27	-90	-340	20
20174692	165	0.333	E[J]	5083	4111	3298	2618	200	18	38	45	40	⊕	-205	
Tipstrike	11.0	660	V[m/sec]	960	888	820	755	100	-5	1	⊕	-25	-84	-314	20
20174362	170	0.454	E[J]	5071	4339	3698	3136	200	15	35	42	38	⊕	-188	
Bondstrike Extreme	11.7	660	V[m/sec]	940	887	837	788	100	-5	1	⊕	-26	-85	-310	20
20176332	180	0.615	E[J]	5171	4608	4097	3632	200	16	35	42	38	⊕	-183	
A-Frame	11.7	660	V[m/sec]	890	813	736	670	100	-4	3	⊕	-34	-108	-396	20
20175192	180	0.400	E[J]	4636	3865	3200	2629	200	23	46	54	47	⊕	-234	
Plastic point	11.7	660	V[m/sec]	920	834	753	677	100	-5	2	⊕	-31	-101	-375	20
20176872	180	0.366	E[J]	4954	4069	3317	2678	200	21	43	50	45	⊕	-224	
Oryx	11.7	660	V[m/sec]	890	803	721	644	100	-3	3	⊕	-35	-113	-415	20
20174762	180	0.354	E[J]	4636	3774	3045	2430	200	25	48	56	49	⊕	-246	
Oryx	13.0	660	V[m/sec]	850	762	679	601	100	-1	4	⊕	-41	-130	-474	20
20176762	200	0.338	E[J]	4698	3772	2995	2349	200	31	56	65	56	⊕	-279	

.300 Weatherby Mag.

Oryx	10.7	660	V[m/sec]	1040	935	839	750	100	-7	0	⊕	-21	-73	-285	20
20174632	165	0.330	E[J]	5778	4683	3771	3009	200	11	29	36	34	⊕	-176	
Tipstrike	11.0	660	V[m/sec]	1000	926	856	789	100	-7	1	⊕	-22	-75	-284	20
20174002	170	0.454	E[J]	5502	4717	4029	3426	200	12	30	37	34	⊕	-172	
Oryx	11.7	660	V[m/sec]	990	898	810	728	100	-6	1	⊕	-24	-82	-314	20
20174622	180	0.354	E[J]	5748	4715	3843	3105	200	14	34	41	37	⊕	-191	

.300 Rem. Ultra Mag.

Oryx	10.7	610	V[m/sec]	1025	923	828	740	100	-7	1	⊕	-22	-76	-295	20
20174792	165	0.333	E[J]	5623	4560	3674	2932	200	12	31	38	35	⊕	-181	
Tipstrike	11.0	610	V[m/sec]	1000	926	856	789	100	-7	1	⊕	-22	-75	-284	20
20174012	170	0.454	E[J]	5502	4717	4029	3426	200	12	30	37	34	⊕	-172	
Bondstrike Extreme	11.7	610	V[m/sec]	970	916	864	815	100	-6	1	⊕	-23	-77	-285	20
20176102	180	0.615	E[J]	5507	4912	4372	3883	200	13	32	38	35	⊕	-170	
Oryx	11.7	610	V[m/sec]	990	896	809	727	100	-6	1	⊕	-24	-82	-316	20
20174782	180	0.354	E[J]	5911	4853	3959	3204	200	13	32	39	36	⊕	185	

.30-378 Weatherby Mag.

Oryx	10.7	660	V[m/sec]	1040	935	839	750	100	-7	0	⊕	-21	-73	-285	20
20174652	165	0.330	E[J]	5778	4683	3771	3009	200	11	29	36	34	⊕	-176	
Tipstrike	11.0	660	V[m/sec]	1030	954	882	815	100	-7	1	⊕	-19	-68	-262	20
20174162	170	0.454	E[J]	5838	5009	4285	3651	200	9	27	34	31	⊕	-160	
Oryx	11.7	660	V[m/sec]	1005	911	823	740	100	-7	1	⊕	-23	-79	-303	20
20174642	180	0.354	E[J]	5911	4853	3959	3204	200	13	32	39	36	⊕	-185	

Bullet	Weight Gram	Barrel length mm	V					Zero range	Height of trajectory above line of sighted in at meters for sight 40 mm above bore						
Item No.	Grains	BC-Value[1]	E[2]	0m	100m	200m	300m	in m	50m	80m	100m	150m	200m	300m	Ctg/box
															
.300 Norma Mag.															
Oryx	13.0	610	V[m/sec]	900	808	723	642	100	-3	3	⊕	-34	-111	-410	20
20174172	200	0.338	E[J]	5267	4249	3395	2681	200	6	47	55	49	⊕	-244	
															
7.7 Japanese															
Softpoint	11.3	610	V[m/sec]	760	654	557	470	100	5	8	⊕	-62	-192	-704	20
20177252	174	0.262	E[J]	3265	2416	1751	1249	200	53	85	96	82	⊕	-416	
															
7.65 x 53 Arg. (7.65 Argentine)															
Softpoint	11.3	610	V[m/sec]	760	654	557	470	100	5	8	⊕	-62	-192	-704	20
20177052	174	0.262	E[J]	3265	2416	1751	1249	200	53	85	96	82	⊕	-416	
															
8 x 57 JRS															
LEAD FREE **Ecostrike**	10.4	610	V[m/sec]	820	752	686	624	100	-1	5	⊕	-43	-133	-475	20
20180252	160	0.430	E[J]	3498	2938	2451	2029	200	33	58	67	57	⊕	-276	
Oryx	12.7	610	V[m/sec]	730	647	570	500	100	7	9	⊕	-66	-198	-699	20
20180102	196	0.331	E[J]	3385	2662	2066	1585	200	56	88	98	83	⊕	-402	
Alaska	12.7	610	V[m/sec]	730	641	558	483	100	6	9	⊕	-66	-201	-719	20
20180182	196	0.305	E[J]	3385	2607	1977	1482	200	56	90	100	85	⊕	-418	
Vulkan	12.7	610	V[m/sec]	730	650	576	507	100	6	9	⊕	-64	-193	-684	20
20180192	196	0.345	E[J]	3385	2687	2108	1635	200	54	86	97	81	⊕	-394	
															
8 x 57 JS															
LEAD FREE **Ecostrike**	10.4	610	V[m/sec]	850	780	713	650	100	-2	4	⊕	-38	-121	-435	20
20180262	160	0.430	E[J]	3759	3165	2648	2200	200	28	52	60	52	⊕	-254	
Alaska	12.7	610	V[m/sec]	770	678	592	513	100	5	8	⊕	-58	-177	-636	20
20180032	196	0.305	E[J]	3767	2918	2226	1675	200	49	79	89	75	⊕	-371	
NEW **Oryx**	12.7	500	V[m/sec]	765	679	598	524	100	4	7	⊕	-57	-173	-622	20
20180342	196	0.331	E[J]	3718	2926	2271	1741	200	47	77	87	73	⊕	-362	
Oryx	12.7	610	V[m/sec]	770	685	605	531	100	4	8	⊕	-57	-172	-614	20
20180042	196	0.331	E[J]	3767	2979	2325	1793	200	47	77	86	73	⊕	-356	
Vulkan	12.7	610	V[m/sec]	770	688	612	541	100	3	7	⊕	-55	-168	-599	20
20180202	196	0.347	E[J]	3767	3011	2378	1857	200	45	74	84	71	⊕	-347	
															
8 x 68 S															
Vulkan	12.7	610	V[m/sec]	900	811	727	648	100	-3	3	⊕	-34	-110	-406	20
20180352	196	0.347	E[J]	5146	4175	3356	2668	200	24	47	55	48	⊕	-242	
A-Frame	13.0	610	V[m/sec]	900	813	731	655	100	-3	3	⊕	-34	-109	-402	20
20180372	200	0.357	E[J]	5267	4299	3479	2786	200	24	47	55	48	⊕	-239	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

	Bullet	Weight Gram	Barrel length mm	V					Zero range in m	Height of trajectory above line of sighted in at meters for sight 40 mm above bore						
	Item No.	Grains	BC-Value[1]	E[2]	0m	100m	200m	300m		50m	80m	100m	150m	200m	300m	Ctg/box
																
	8.5 x 55 Blaser															
NEW	**Oryx**	14.9	610	V[m/sec]	820	739	663	592	100	0	5	⊕	-45	-140	-502	20
	20185362	230	0.370	E[J]	5012	4074	3279	2610	200	35	61	70	60	⊕	-293	
																
	.338 Win. Mag.															
	Oryx	14.9	660	V[m/sec]	840	759	683	612	100	0	5	⊕	-43	-133	-477	20
	20185112	230	0.370	E[J]	5259	4299	3481	2790	200	33	55	66	57	⊕	-277	
																
	.340 Weatherby Mag.															
	Oryx	14.9	660	V[m/sec]	915	830	751	676	100	-4	2	⊕	-32	-103	-380	20
	20186182	230	0.370	E[J]	6240	5139	4201	3402	200	22	44	51	45	⊕	-226	
																
	.358 Norma Mag.															
	Oryx	16.2	660	V[m/sec]	840	753	670	594	100	0	5	⊕	-44	-136	-492	20
	20190072	250	0.340	E[J]	5718	4589	3643	2856	200	34	56	68	58	⊕	-287	
																
	9.3 x 57															
	Oryx	15.0	610	V[m/sec]	720	619	527	446	100	9	12	⊕	-73	-220	-798	20
	20193092	232	0.267	E[J]	3890	2875	2084	1494	200	64	94	110	93	⊕	-467	
																
	9.3 x 62															
LEAD FREE	**Ecostrike**	14.9	610	V[m/sec]	805	736	670	607	100	1	6	⊕	-46	-142	-503	20
	20193442	230	0.420	E[J]	4830	4034	3344	2750	200	36	62	71	60	⊕	-290	
	Vulkan	15.0	610	V[m/sec]	800	697	602	515	100	3	7	⊕	-54	-166	-605	20
	20193172	232	0.278	E[J]	4802	3644	2716	1989	200	44	73	83	71	⊕	-356	
	Oryx	15.0	610	V[m/sec]	800	693	594	505	100	3	8	⊕	-54	-168	-617	20
	20193072	232	0.267	E[J]	4802	3601	2647	1911	200	45	71	84	72	⊕	-365	
	A-Frame	18.5	610	V[m/sec]	720	656	596	539	100	6	9	⊕	-63	-189	-655	20
	20193332	286	0.428	E[J]	4797	3984	3282	2685	200	53	84	94	79	⊕	-372	
NEW	**Oryx**	18.5	500	V[m/sec]	715	638	565	498	100	7	10	⊕	-67	-202	-711	20
	20193232	286	0.356	E[J]	4731	3761	2955	2299	200	57	90	101	84	⊕	-408	
	Oryx	18.5	610	V[m/sec]	720	638	561	491	100	7	10	⊕	-67	-203	-719	20
	20193132	286	0.330	E[J]	4797	3764	2915	2234	200	57	91	101	85	⊕	-415	
	Plastic point	18.5	610	V[m/sec]	720	645	575	511	100	6	9	⊕	-65	-197	-691	20
	20193142	286	0.365	E[J]	4797	3855	3065	2414	200	56	88	98	82	⊕	-396	
	Alaska	18.5	610	V[m/sec]	720	645	575	511	100	7	10	⊕	-66	-199	-695	20
	20193152	286	0.365	E[J]	4797	3854	3063	2412	200	57	89	99	83	⊕	-397	
	Oryx	21.1	610	V[m/sec]	670	621	548	482	100	8	10	⊕	-71	-214	-757	20
	20193162	325	0.340	E[J]	5162	3821	3167	2444	200	61	96	107	90	⊕	-436	

For more centrefire rifle cartridges, please see our listings in the RWS and GECO sections of this catalogue.

Bullet	Weight Gram	Barrel length mm	V					Zero range	Height of trajectory above line of sighted in at meters for sight 40 mm above bore						
Item No.	Grains	BC-Value[1]	E[2]	0m	100m	200m	300m	in m	50m	80m	100m	150m	200m	300m	Ctg/box
9.3 x 74 R															
LEAD FRE **Ecostrike**	14.9	610	V[m/sec]	780	712	647	586	100	2	6	⊕	-51	-154	-543	20
20193462	230	0.420	E[J]	4535	3778	3123	2560	200	41	68	77	65	⊕	-312	
Vulkan	15.0	610	V[m/sec]	780	678	585	500	100	3	7	⊕	-57	-175	-639	20
20193212	232	0.278	E[J]	4565	3454	2566	1876	200	47	77	87	75	⊕	-377	
Alaska	18.5	610	V[m/sec]	710	636	567	503	100	7	10	⊕	-68	-204	-714	20
20193202	286	0.365	E[J]	4665	3743	2972	2339	200	58	91	102	85	⊕	-409	
Plastic point	18.5	610	V[m/sec]	720	645	575	510	100	6	9	⊕	-65	-197	-692	20
20193252	286	0.365	E[J]	4797	3852	3060	2408	200	56	88	98	82	⊕	-397	
Oryx	18.5	610	V[m/sec]	710	634	553	498	100	8	10	⊕	-70	-210	-743	20
20193322	286	0.330	E[J]	4665	3722	2937	2296	200	60	94	105	88	⊕	-428	
.375 H&H Mag.															
LEAD FREE **Ecostrike**	16.2	610	V[m/sec]	820	751	686	624	100	0	5	⊕	-43	-134	-475	20
NEW 20195502	250	0.438	E[J]	5449	4576	3817	3159	200	33	58	67	57	⊕	-275	
LEAD FRE **TSX**	17.5	610	V[m/sec]	800	712	629	552	100	1	6	⊕	-50	-154	-557	20
20195302	270	0.326	E[J]	5602	4434	3464	2670	200	40	67	77	66	⊕	-326	
Oryx	19.4	610	V[m/sec]	780	691	608	532	100	4	8	⊕	-55	-169	-604	20
20195202	300	0.320	E[J]	5904	4636	3591	2744	200	46	71	84	71	⊕	-351	
A-Frame	19.4	610	V[m/sec]	780	693	611	536	100	2	7	⊕	-53	-165	-594	20
20195032	300	0.325	E[J]	5904	4656	3624	2784	200	43	73	82	70	⊕	-347	
.416 Rigby															
A-Frame	25.9	610	V[m/sec]	716	642	573	508	100	6	9	⊕	-66	-198	-697	20
20110692	400	0.367	E[J]	6642	5340	4247	3348	200	56	88	99	83	⊕	-400	
.458 Win. Mag.															
A-Frame	32.4	660	V[m/sec]	645	574	509	450	100	13	14	⊕	-87	-258	-897	20
20111202	500	0.361	E[J]	6743	5345	4197	3280	200	77	117	129	106	⊕	-510	

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Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

DEDICATED SINCE 1902

RIMFIRE CARTRIDGES

Small game, big adventure

Our rimfire series covers every need that hunters of vermin or small game might have. We're proud to present a complete product range for discerning hunters. From high-fragmentation polymer-tipped bullets to hollowpoints with superior kinetic energy transfer and, from this year, a unique range of lead-free bullets with unrivalled penetration properties.

.17 HMR

Norma's .17 HMR V-MAX® is the perfect round for varmint hunters and small game hunters alike. With a 17gr polymer tipped bullet going a screaming fast 777 m/sec, the Norma .17 HMR V-MAX® delivers tremendous accuracy and hard-hitting performance all the way out to 200 meters.

- Hard-hitting polymer tipped V-MAX® bullet for quick expansion
- Ideal hunting cartridge for varmints and small game
- Incredibly fast-moving projectile produces 200 meters effective range

.22 WMR

Norma is pleased to offer a jacketed hollow point in .22 Mag. A great option for hunting pests, varmints and small game, Norma's .22 Mag is designed to deliver exceptional accuracy and punishing results out of this popular rimfire caliber.

- Jacketed hollow point design creates optimal penetration and expansion for lethality on small game
- Extremely accurate projectile out to medium ranges

Item No.	Type	Bullet Type	Weight g	Barrel length mm	Velocity m/sec V_0	V_{50}	V_{100}	V_{150}	Energy Joule E_0	E_{50}	E_{100}	E_{150}	sighting-in distance	point of impact in cm with scope mounted 5 cm above bore axis 0 m	50 m	100 m	150 m	Ctg/ box
240 97 42	**.17HMR**	V-MAX®	1.1	600	777	667	568	478	332	245	178	126	100 m	-3.8	0.8	⊕	-8.6	50
240 97 46	**.22WMR**	JHP	2.6	600	572	472	390	333	424	289	198	144	100 m	-3.8	3.6	⊕	-20.1	50

V-MAX® is a registered trademark of Hornady Manufacturing Company

NEW

ECO SPEED-22, ECO POWER-22

100% lead-free

ECO SPEED-22

LEAD FREE

New for this year is our lead-free ECO Speed-22, with a muzzle velocity exceeding all others on the market. The cartridge is 100% lead-free, including the primer, making it quite unique on the market. Why unleaded primers? Well, if you do a lot of semi-auto shooting, all those harmful lead particles get into the air you're inhaling and can harm your internal organs.

- Copper-plated solid zinc bullet for hunting and plinking
- 100% lead free: lead-free primer and lead-free bullet
- Outstanding effect due to up to 58% higher velocity than standard
- Suitable for rifles and semiautomatic firearms
- Caliber: .22 long rifle
- Zinc bullet, 1.6 g, V_0 520 m/sec (barrel length: 65 cm)

ECO POWER-22

LEAD FREE

Our second piece of lead-free news is the ECO Power-22, with its astonishing penetration – twice as much as the lead options out there. The bullet is a frangible product with high impact energy and thus ideally suited to hunts where power is all-important. This product is also 100% lead-free.

- Copper-plated zinc partially fragmenting hunting bullet
- 100% lead free: lead-free primer and lead-free bullet
- Outstanding effect due to up to 58% higher velocity than standard
- Fragmenting hollow-point bullet for maximum shocking power
- Suitable for rifles
- Caliber: .22 long rifle
- Zinc bullet, 1.6 g, V_0 520 m/sec (barrel length: 65 cm)

Item No.	Calibre	Type	Bullet	Weight g	Barrel Length mm	Velocity m/sec V_0	V_{50}	V_{100}	Energie joules E_0	E_{50}	E_{100}	sighting-in distance	point of impact in cm with scope mounted 5cm above bore axis 25 m	50 m	75 m	100 m	Ctg/box
241 40 38	.22 l.r.	**ECO Speed-22**	Zinc, copper-plated	1.6	650	520	396	313	210	122	76	50 m	-1.0	⊕	-2.9	-10.9	50
241 40 39	.22 l.r.	**ECO Power-22**	Zinc HP, copper-plated	1.6	650	520	397	313	210	122	76	50 m	-1.0	⊕	-2.9	-10.9	50
240 00 65	.22 l.r.	**Subsonic-22**	LHP	2.6	650	315	285	264	129	106	89	50 m	1.0	⊕	-8.5	-25.1	50
213 29 90	.22 l.r.	**Jaktmatch**	LRN	2.6	650	330	294	270	142	113	95						50

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

DH AFRICAN PH™

HANDLOADED TO THE HIGHEST STANDARD

Norma's cooperation with Woodleigh bullets offers the finest dangerous game ammunition available. Tried and tested steel-jacketed solids and bonded-core soft points are coupled with high quality Norma brass and powder and loaded under the most rigorous inspection standards in the industry. Nickeled cases are used to ensure the most reliable feeding and ejection from rifles whose metal work is too hot to touch or full of the inevitable African dust. The Woodleigh FMJ bullets use a steel jacket twice as thick as any other in the industry. Cases are all hand inspected both before and after loading.

For the working guide, there are three considerations for ammunition: reliable feeding, reliable ignition and reliable straightline penetration. Many guides like to carry their rifles with an empty chamber and only load when danger threatens. The Norma Solids are designed to ensure reliable feeding in just about any make of rifle, including old, well-worn ones. The law often forces a guide to allow a charging animal to get very close before he may fire the rifle so every shot must count. Being made from a proprietary brass alloy, Norma Solids are guaranteed not to break up, turn or deviate.All African PH ammunition is inspected and loaded at our Åmotfors factory in Sweden.

Bullet	Weight g/gr	V						Zero range in m	Height of trajectory above line of sighted in at meters for sight 40 mm above bore					
Item No.	BC-Value [1]	E[2]	0m	50m	100m	150m	200m		0m	50m	100m	150m	200m	Ctg/box
9.3x62														
Solid	17.8 g / 275 gr	V[m/sec]	745	686	629	576	525	100m	-41	6	⊕	-68	-210	10
20193552	0.236	E[J]	4942	4188	3526	2950	2455	kg-m/s	13.3	12.2	11.2	10.2	9.3	
.375 H&H Mag.														
Solid	19.4 g /300 gr	V[m/sec]	777	715	655	598	545	100m	-41	4	⊕	-61	-191	10
20195352	0.229	E[J]	5871	4965	4172	3482	2887	kg-m/s	15.1	13.9	12.7	11.6	10.6	
Woodleigh Soft point	22.7 g / 350 gr	V[m/sec]	700	660	621	584	548	100m	-40	8	⊕	-72	-216	10
20195252	0.321	E[J]	5559	4940	4376	3866	3407	kg-m/s	15.9	15	14.1	13.2	12.4	
Woodleigh FMJ	22.7 g / 350 gr	V[m/sec]	700	658	618	579	542	100m	-40	8	⊕	-72	-218	10
20195262	0.307	E[J]	5559	4913	4328	3800	3328	kg-m/s	15.9	14.9	14	13.1	12.3	
.375 Flanged Magnum Nitro Express														
Woodleigh Soft point	19.4 g / 300 gr	V[m/sec]	730	680	631	585	541	100m	-40	8	⊕	-69	-210	10
20195222	0.276	E[J]	5182	4493	3878	3331	2849	kg-m/s	14.2	13.2	12.3	11.4	10.5	
Woodleigh FMJ	19.4 g / 300 gr	V[m/sec]	730	680	631	585	541	100m	-40	8	⊕	-69	-210	10
20195232	0.276	E[J]	5182	4493	3878	3331	2849	kg-m/s	14.2	13.2	12.3	11.4	10.5	
.404 Rimless Nitro Express Jeffery														
Solid	25.9 g / 400 gr	V[m/sec]	710	655	602	553	506	100m	-41	8	⊕	-76	-233	10
20110352	0.247	E[J]	6518	5545	4689	3944	3302	kg-m/s	18.4	17.1	15.6	14.3	13.1	
Woodleigh Soft point	29.2 g / 450 gr	V[m/sec]	655	621	588	556	526	100m	-40	11	⊕	-82	-244	10
20110302	0.365	E[J]	6258	5625	5044	4515	4034	kg-m/s	19.4	18.1	17.1	16.2	15.3	
Woodleigh FMJ	29.2 g / 450 gr	V[m/sec]	655	621	587	555	524	100m	-40	11	⊕	-83	-245	10
20110312	0.360	E[J]	6258	5616	5029	4494	4009	kg-m/s	19.4	18.1	17.1	16.2	15.3	
.416 Rigby														
Solid	25.9 g / 400 gr	V[m/sec]	725	669	616	565	518	100m	-41	7	⊕	-72	-221	10
20110762	0.247	E[J]	6796	5791	4905	4131	3462	kg-m/s	18.8	17.3	15.9	14.6	13.4	
Woodleigh Soft point	29.2 g / 450 gr	V[m/sec]	655	618	583	549	516	100m	-40	12	⊕	-84	-250	10
20110702	0.338	E[J]	6258	5576	4956	4395	3891	kg-m/s	19.1	18	17	16	15.1	
Woodleigh FMJ	29.2 g / 450 gr	V[m/sec]	655	617	580	545	513	100m	-40	12	⊕	-85	-253	10
20110712									19.1	18	16.9	15.9	14.9	
.416 Taylor														
Solid	24.3 g / 375 gr	V[m/sec]	715	659	606	555	508	100m	-41	8	⊕	-75	-228	10
20110542	0.245	E[J]	6232	5298	4477	3762	3146	kg-m/s	17.4	16.1	14.7	13.5	12.4	
.416 Rem. Mag.														
Solid	25.9 g / 400 gr	V[m/sec]	730	674	620	569	521	100m	-41	6	⊕	-70	-215	10
20110752	0.247	E[J]	6947	5924	5022	4233	3550	kg-m/s	19.0	17.5	16.1	14.8	13.6	
Woodleigh Soft point	29.2 g / 450 gr	V[m/sec]	655	618	583	549	516	100m	-40	12	⊕	-84	-250	10
20110722	0.338	E[J]	6258	5576	4956	4395	3891	kg-m/s	19.1	18	17	16	15.1	
Woodleigh FMJ	29.2 g / 450 gr	V[m/sec]	655	617	580	545	511	100m	-40	12	⊕	-85	-253	10
20110732	0.325	E[J]	6258	5551	4909	4332	3815	kg-m/s	19.1	18	16.9	15.9	14.9	
.500/.416 Nitro Exp.														
Woodleigh Soft point	26.6 g / 410 gr	V[m/sec]	710	665	622	581	542	100m	-40	9	⊕	-72	-217	10
20110532	0.307	E[J]	6700	5885	5150	4490	3901	kg-m/s	18.9	17.7	16.5	15.4	14.4	
Woodleigh FMJ	26.6 g / 410 gr	V[m/sec]	710	665	622	581	542	100m	-40	9	⊕	-72	-217	10
20110522	0.307	E[J]	6700	5885	5150	4490	3901	kg-m/s	18.9	17.7	16.5	15.4	14.4	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Bullet	Weight g/gr	V						Zero range in m	Height of trajectory above line of sighted in at meters for sight 40 mm above bore					
Item No.	BC-Value [1]	E[2]	0m	50m	100m	150m	200m		0m	50m	100m	150m	200m	Ctg/box
.450 Rigby Rimless														
LEAD FREE **Solid**	32.4 g / 500 gr	V[m/sec]	760	707	657	608	562	100m	-41	4	⊕	-61	-189	10
20111042	0.269	E[J]	9411	8153	7030	6032	5150	kg-m/s	24.7	23.0	21.3	19.8	18.3	
Woodleigh Soft point	35.6 g / 550 gr	V[m/sec]	640	604	569	536	505	100m	-40	13	⊕	-89	-263	10
20111052	0.340	E[J]	7302	6505	5780	5125	4538	kg-m/s	22.8	21.5	20.3	19.1	18	
Woodleigh FMJ	35.6 g / 550 gr	V[m/sec]	640	603	566	532	499	100m	-40	13	⊕	-90	-266	10
20111062	0.326	E[J]	7302	6472	5721	5046	4444	kg-m/s	22.8	21.5	20.2	19	17.8	
.458 Win. Mag.														
LEAD FREE **Solid**	32.4 g / 500 gr	V[m/sec]	640	592	547	504	464	100m	-41	15	⊕	-97	-290	10
20111182	0.269	E[J]	6638	5685	4846	4116	3489	kg-m/s	20.7	19.2	17.7	16.3	15.0	
.458 Lott														
LEAD FREE **Solid**	32.4 g / 500 gr	V[m/sec]	700	650	601	555	512	100m	-41	9	⊕	-76	-232	10
20111172	0.269	E[J]	7964	6862	5282	5019	4266	kg-m/s	22.7	21.1	19.5	18.0	16.6	
Woodleigh Soft point	35.6 g / 550 gr	V[m/sec]	640	601	563	527	493	100m	-40	15	⊕	-92	-273	10
20111132	0.330	E[J]	7302	6437	5657	4957	4335	kg-m/s	22.8	21.4	20.1	18.9	17.4	
Woodleigh FMJ	35.6 g / 550 gr	V[m/sec]	640	601	563	527	493	100m	-40	15	⊕	-92	-273	10
20111142	0.330	E[J]	7302	6437	5657	4957	4335	kg-m/s	22.8	21.4	20.0	18.7	17.5	
.470 Nitro Exp.														
Woodleigh Soft point	32.4 g / 500 gr	V[m/sec]	640	607	576	545	516	100m	-40	13	⊕	-87	-257	10
20112052	0.374	E[J]	6638	5976	5369	4815	4313	kg-m/s	20.7	19.7	18.6	17.7	16.7	
Woodleigh FMJ	32.4 g / 500 gr	V[m/sec]	640	607	575	544	515	100m	-40	13	⊕	-88	-258	10
20112062	0.370	E[J]	6638	5970	5357	4798	4292	kg-m/s	20.7	19.7	18.6	17.6	16.7	
.500 Jeffery														
LEAD FREE **Solid**	35.0 g / 540 gr	V[m/sec]	730	672	617	564	515	100m	-41	7	⊕	-71	-218	10
20113182	0.239	E[J]	9381	7956	6705	5617	4680	kg-m/s	25.6	23.6	21.7	19.8	18.1	
Woodleigh Soft point	36.9 g / 570 gr	V[m/sec]	670	636	603	571	540	100m	-40	10	⊕	-78	-231	10
20113162	0.368	E[J]	8293	7467	6709	6016	5384	kg-m/s	24.7	23.5	22.3	21.1	19.9	
Woodleigh FMJ	36.9 g / 570 gr	V[m/sec]	670	634	599	566	534	100m	-40	11	⊕	-79	-234	10
20113152	0.350	E[J]	8293	7427	6635	5914	5261	kg-m/s	24.7	23.4	22.1	20.9	19.7	
.500 Nitro Exp. 3“														
Woodleigh Soft point	36.9 g / 570 gr	V[m/sec]	640	607	575	544	514	100m	-40	13	⊕	-87	-257	10
20113012	0.368	E[J]	7569	6802	6100	5461	4881	kg-m/s	24.2	22.9	21.6	20.4	19.2	
Woodleigh FMJ	36.9 g / 570 gr	V[m/sec]	640	605	571	539	508	100m	-40	13	⊕	-88	-261	10
20113022	0.350	E[J]	7569	6764	6032	5367	4770	kg-m/s	24.2	22.8	21.5	20.2	19.0	
.505 Magnum Gibbs														
LEAD FREE **Solid**	35.0 g / 540 gr	V[m/sec]	700	644	591	541	494	100m	-41	9	⊕	-79	-242	10
20113122	0.242	E[J]	8603	7288	6136	5137	4282	kg-m/s	24.5	22.6	20.7	19.1	17.3	
Woodleigh Soft point	39 g / 600 gr	V[m/sec]	640	606	573	542	511	100m	-40	13	⊕	-88	-259	10
20113102	0.360	E[J]	7699	7142	6389	5705	5087	kg-m/s	24.9	23.6	22.3	21.1	19.9	
Woodleigh FMJ	39 g / 600 gr	V[m/sec]	640	606	573	542	511	100m	-40	13	⊕	-88	-259	10
20113112	0.360	E[J]	7966	7142	6389	5705	5087	kg-m/s	24.9	23.6	22.3	21.1	19.9	

DH JAKTMATCH™

Bullet	Weight g/gr	V²					Zero range	Height of trajectory above line of sighted in at meters for sight 40 mm above bore						
Item No.	BC-Value [1]		0m	100m	200m	300m	in m	50m	80m	100m	150m	200m	300m	Ctg/box
.222 Rem.														
Full Metal Jacket	3.6 g/55 gr	V[m/sec]	940	791	656	536	100	-4	3	⊕	-36	-119	-469	50
20157210	0.209	E[J]					200	26	51	60	53	⊕	-291	
.223 Rem.														
Full Metal Jacket	3.6 g/55 gr	V[m/sec]	990	835	696	571	100	-4	2	⊕	-31	-104	-414	50
20157260	0.209	E[J]					200	22	44	52	47	⊕	-258	
.22-250 Rem.														
Full Metal Jacket	3.2 g/50 gr	V[m/sec]	1100	932	783	650	100	-7	0	⊕	-21	-76	-314	20
20157320	0.209	E[J]					200	12	31	38	36	⊕	-200	
6XC														
Full Metal Jacket	6.2 g/95 gr	V[m/sec]	900	812	729	650	100	-2	3	⊕	-35	-112	-409	20
20160290	0.351	E[J]					200	26	48	56	49	⊕	-241	
.243 Win.														
Full Metal Jacket	6.2 g/95 gr	V[m/sec]	975	882	794	712	100	-5	2	⊕	-27	-89	-334	50
20160370	0.351	E[J]					200	17	37	44	40	⊕	-200	
6.5 x 55 SE														
Hollow point	6.5 g/100 gr	V[m/sec]	800	710	626	548	100	2	6	⊕	-50	-156	-563	50
20165270	0.321	E[J]					200	41	68	78	67	⊕	-330	
Full Metal Jacket	7.8 g/120 gr	V[m/sec]	820	751	685	623	100	0	5	⊕	-43	-134	-478	50
20165420	0.428	E[J]					200	34	59	67	57	⊕	-277	
6.5-284 Norma														
Full Metal Jacket	7.8 g/120 gr	V[m/sec]	950	874	803	735	100	-5	2	⊕	-27	-89	-330	20
20165860	0.428	E[J]					200	17	37	44	40	⊕	-197	
.270 Win.														
Full Metal Jacket	8.4 g/130 gr	V[m/sec]	880	796	717	642	100	-2	4	⊕	-37	-117	-427	50
20169070	0.365	E[J]					200	28	48	59	51	⊕	-250	
7 mm Rem. Mag.														
Full Metal Jacket	9.7 g/150 gr	V[m/sec]	913	842	774	709	100	-4	2	⊕	-31	-99	-362	50
20170260	0.443	E[J]					200	21	42	49	44	⊕	-214	
7x57 R														
Full Metal Jacket	9.7 g/150 gr	V[m/sec]	805	739	676	616	100	1	5	⊕	-46	-140	-496	20
20170062	0.441	E[J]	3144	2648	2215	1839	200	36	62	70	60	⊕	-286	
.308 Win.														
Full Metal Jacket	9.7 g/150 gr	V[m/sec]	810	741	675	613	100	0	5	⊕	-45	-139	-494	50
20176220	0.423	E[J]					200	35	61	70	59	⊕	-286	
.30-06														
Full Metal Jacket	9.7 g/150 gr	V[m/sec]	845	774	706	642	100	0	5	⊕	-41	-126	-450	50
20176510	0.423	E[J]					200	31	55	63	54	⊕	-260	
.300 WSM														
Full Metal Jacket	9.7 g/150 gr	V[m/sec]	900	826	756	690	100	-3	3	⊕	-33	-106	-384	20
20175730	0.423	E[J]					200	24	43	53	46	⊕	-225	
.300 Win. Mag.														
Full Metal Jacket	9.7 g/150 gr	V[m/sec]	935	859	787	719	100	-4	2	⊕	-30	-95	-349	20
20175450	0.423	E[J]					200	20	40	48	42	⊕	-206	
8 x 57 JS														
Full Metal Jacket	8.0 g/ 123 gr	V[m/sec]	860	706	569	451	100	0	5	⊕	-50	-160	-632	50
20180090	0.191	E[J]					200	40	70	80	71	⊕	-392	
.338 Win. Mag.														
Full Metal Jacket	14.6 g/225 gr	V[m/sec]	810	751	695	641	100	1	6	⊕	-45	-136	-476	20
20185100	0.499	E[J]					200	35	60	68	58	⊕	-272	
9.3 x 57														
Full Metal Jacket	15.0 g/232 gr	V[m/sec]	675	580	495	421	100	11	14	⊕	-84	-254	-911	50
20193060	0.275	E[J]					200	75	109	127	106	⊕	-531	
9.3 x 62														
Full Metal Jacket	15.0 g/232 gr	V[m/sec]	765	663	570	486	100	4	8	⊕	-60	-185	-675	50
20193180	0.275	E[J]					200	50	80	92	78	⊕	-397	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

NEW

DH SHOTSHELLS

FOR THE DISCERNING HUNTER

Quick decisions and lightning-fast shooting requires 100% confidence in the shotgun ammunition you use. Norma is now launching a wide range of hunting shells for the discerning hunter. These are subject to the same stringent quality requirements as all other ammunition in our range. Our shotgun ammunition consists of carefully selected components and is rigorously tested according to Norma's strict quality standards. Our products offer exceptional advantages in terms of velocity, range and soft recoil, giving you confidence as you hunt that your shot will go where you intended. With shotgun cartridges from 28 g to 42 g, Norma's new shotshell range covers all types of small game hunting, while our strict quality requirements guarantee ammunition that delivers excellent, consistent results in all climates, weather conditions and situations.

JAKTMATCH 24

Jaktmatch is a hunting practice cartridge with mild recoil and consistent pattern. Good quality steel shot, US 7.

- Red polyethylene case
- 10 mm brass head
- Steel shot

LEAD FREE

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	2.5 mm	24 g	25/box	400 m/sec

JAKTSTIG 28

A competition cartridge approved for the Norma Running Silhouette Cup. Highest quality lead shot and consistent velocity for an ideal pattern. The 28 g charge means semi-autos will cycle safely.

- Red polyethylene case
- 10 mm brass head
- Lead shot

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	2.0 mm	28 g	25/box	385 m/sec

MAGNUM 42

Magnum 42 has been developed for extreme conditions. Its heavy charge, for open-choke shooting, makes Magnum 42 the hunter's favourite. Premium components for superior efficiency.

- Red polyethylene case
- 16 mm brass head
- Lead shot

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	3.2 - 4.0 mm	42 g	10/box	360 m/sec

SPECIAL 36

The modern version of the classic Special. Plastic hull containing highest-quality components. The result is a product with consistent, superior performance for demanding hunts.

- Red polyethylene case
- 16 mm brass head
- Lead shot

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	3.0 + 3.5 mm	36 g	10/box	375 m/sec

EXTRA 36

Specially developed for demanding small-game hunting. Balanced muzzle velocity and softer recoil to suit regular hunters.

- Red polyethylene case
- 12 mm brass head
- Lead shot

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	3.0 - 3.5 mm	36 g	25/box	370 m/sec

GROUSE 32

Plastic hull loaded with highest-quality lead shot. Plastic wad and well-moderated velocity. Good energy transfer and fantastic patterning make Grouse the favourite for hunting gamebirds.

- Red polyethylene case
- 12 mm brass head
- Lead shot

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	2.7 + 3.0 mm	32 g	25/box	375 m/sec

WETLAND® 28

LEAD FREE

A cartridge with environmentally-friendly steel shot for most gamebirds. Its combination of high-quality components makes Wetland a favourite for discerning hunters, especially over wetlands.

- Red polyethylene case
- 12 mm brass head
- Steel shot

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	3.25 + 3.5 mm	28 g	25/box	425 m/sec

NORMA SHOTSHELLS - DH DEDICATED HUNTING

Item No.		Gauge	Shot size in mm	Shot number	Shot weight in g	Ctg/box	
77112904	**Jaktmatch 24**	12/70	2.5	No. 7	24	25	LEAD FREE
77112844	**Jaktstig 28**	12/70	2.0	No. 9	28	25	
77112001	**Magnum 42**	12/70	4.0	No. 1	42	10	
77112031	**Magnum 42**	12/70	3.5	No. 3	42	10	
77112061	**Magnum 42**	12/70	3.2 - 3.7	No. 2 - 4	42	10	
77112091	**Special 36**	12/70	3.5	No. 3	36	10	
77112121	**Special 36**	12/70	3.0	No. 5	36	10	
77112244	**Extra 36**	12/70	3.5	No. 3	36	25	
71112254	**Extra 36**	12/70	3.2	No. 4	36	25	
77112274	**Extra 36**	12/70	3.0	No. 5	36	25	
77112294	**Grouse 32**	12/70	3.0	No. 5	32	25	
77112304	**Grouse 32**	12/70	2.7	No. 6	32	25	
77112334	**Wetland® 28**	12/70	3.5	No. 3	28	25	LEAD FREE
77112364	**Wetland® 28**	12/70	3.25	No. 4	28	25	LEAD FREE

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

AIRGUN PELLETS

High knock-down power and excellent penetration

With the goal to fulfil all needs in the ammunition world and become your unique supplier, Norma is proud to announce our new line of airgun pellets. With an understanding of the new trends and new fields of application together with our cutting-edge technologies, we have streamlined the range to fit a broad range of purposes. Airgun rifles and airgun pistols have also experienced advances in technologies such as PCP systems, different power levels and repeating magazines for instance. To find the right airgun pellet for your gun and for your specific purposes, just let yourself be guided by the icons on the packages. Our line of hunting pellets offers excellent precision and high knock-down power as well as superior penetration for a successful hunt.

GOLDEN TROPHY FT

Golden trophy FT has twice knock-down power than standard pellets and excellent precision at long ranges.

- Field target and hunting pellet
- Airguns up to 24 Joules
- Ideal for field target and hunting (bellow 25 meters)
- Knock-down and precision
- Available in cal. 4.5 mm, 0.54 g, 300-count tin and in cal. 5.5 mm, 1.03 g, 200-count tin

GOLDEN TROPHY FT HEAVY

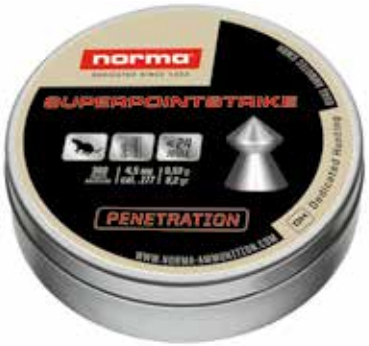
Golden trophy FT heavy is developed to perform on high powered airguns. Astonishing precision at distances up to 50 meters.

- Field target and hunting pellet
- Airguns above 24 Joules (high powered)
- Ideal for field target and hunting (up to 50 meters)
- Knock-down and precision
- Available in cal. 4.5 mm, 0.59 g, 300-count tin and in cal. 5.5 mm, 1.14 g, 200-count tin

SUPERPOINT STRIKE

Superpoint strike has 70% more penetration than standard pellets, perfect combination for hunting or pest control.

- Hunting and plinking pellet
- Airguns up to 24 Joules
- Ideal for hunting and plinking
- Penetration
- Available in cal. 4.5 mm, 0.53 g, 300-count tin and in cal. 5.5 mm, 0.94 g, 200-count tin



Type	Bullet type	Calibre	Pellet weight g	Pellet weight gr	Single pack.	Sales pack.	Item No. **Ind. tins**	Item No. **Blistered tins**
GOLDEN TROPHY FT	Domed	4.5 mm / .177	0.54	8.4	300	3000	241 14 00	241 14 09
		5.5 mm / .22	1.03	15.9	200	2000	241 14 01	241 14 10
GOLDEN TROPHY FT HEAVY	Domed	4.5 mm / .177	0.59	9.1	300	3000	241 14 03	241 14 11
		5.5 mm / .22	1.14	17.6	200	2000	241 14 04	241 14 12
SUPERPOINT STRIKE	Pointed	4.5 mm / .177	0.53	8.2	300	3000	241 14 05	241 14 13
		5.5 mm / .22	0.94	14.5	200	2000	241 14 06	241 14 14

DPR MATCH LINE

DEDICATED TO PRECISION

We are proud of our sponsored shooters filling podiums all over the world with their rifles loaded with Norma's factory loads. Working with shooters, improving our products and ensuring that we always deliver precision are important parts in our research and development to match the high standards of elite shooters around the world. Our task is to deliver precision in every shot so that your ammunition is just an extension of your own capacity as a shooter. Our Dedicated Precision line features the finest components and highly designed factory loads for the most intense competitions. Whether you're racing through one of the toughest stages of the week-end, or focusing your crosshairs on the x-ring, Norma has the ammunition for you.

Bullet Item No.	Bullet Type Barrel length (mm)	Weight g/gr BC-Value [1]	V0 (m/sec)	Height of trajectory above line of sight if sighted in at meters. For sights 40 mm above bore 100m	200m	300m	400m	500m	600m	Ctg/box
.223 Rem.										
Match King	HPBT	5.0 g/77 gr	850	153	179	⊕	-433	-1188	-2358	20
10157502	610	0.372								
6 mm Norma BR										
Diamond Line	Coated HPBT	6.8 g/105 gr	850	138	160	⊕	-372	-992	-1904	50
10160162	660	0.517								
6XC										
Diamond Line	Coated HPBT	6.8 g/105 gr	920	113	134	⊕	-312	-830	-1590	50
10160182	660	0.517								
6.5 Creedmoor										
Golden Target	HPBT	8.4 g/130 gr	869	129	150	⊕	-346	-919	-1757	20
10166312	660	0.548								
6.5 x 55 SE										
Hollow Point Rekrutt	HP	6.5 g/100 gr	800	182	212	⊕	-523	-1450	-2906	50
10165230	740	0.345								
Diamond Line Bana	Coated HPBT	8.4 g/130 gr	830	144	166	⊕	-383	-1019	-1949	50
10165000	670	0.548								
Diamond Line Fält	Coated HPBT	8.4 g/130 gr	900	114	135	⊕	-312	-829	-1584	50
10165300	740	0.548								
Golden Target	HPBT	8.4 g/130 gr	830	144	166	⊕	-383	-1019	-1949	50
10165130	740	0.548								
6.5-284 Norma										
Golden Target	HPBT	8.4 g/130 gr	935	107	127	⊕	-294	-781	-1491	20
10166092	660	0.548								
.308 Win.										
Golden Target	FMJ	9.7 g/150 gr	830	154	178	⊕	-421	-1136	-2210	50
10175230	740	0.438								
Diamond Line Match	Coated HPBT	10.9 g/168 gr	777	180	200	⊕	-470	-1270	-2470	20
10176152	660	0.470								
.30-06										
Golden Target	FMJ	9.7 g/150 gr	850	148	168	⊕	-399	-1076	-2092	50
10175630	740	0.438								
.300 Norma Mag.										
Hybrid Target	HPBT	14.9 g/230 gr	910	108	126	⊕	-285	-747	-1404	20
20174602	660	0.743								
Hybrid Target Match	Coated HPBT	14.9 g/230 gr	910	108	126	⊕	-285	-747	-1404	20
20174182	660	0.743								
.338 Norma Mag.										
Match King	HPBT	19.4 g/300 gr	810	144	163	⊕	-365	-953	-1791	20
20185272	660	0.768								
Diamond Line Match	Coated HPBT	19.4 g/300 gr	810	144	163	⊕	-365	-953	-1791	20
20185012	660	0.768								
.338 Lapua Mag.										
Match King	HPBT	16.2 g/250 gr	860	131	151	⊕	-346	-915	-1742	20
10185192	685	0.587								
Match King	HPBT	19.4 g/300 gr	810	144	163	⊕	-365	-953	-1791	20
10185212	685	0.768								

1) BC-Value = Ballistic coefficient

DEDICATED SINCE 1902

RIMFIRE CARTRIDGES

Top performance with our rimfire series

We offer the highest standards of quality and the best performance out there. Our rimfire products maintain the most stringent production controls in the industry. Having our own production process means we can monitor every stage of production, ensuring that every one of our batches meets our high standards. Our rimfire cartridges are made for perfect performance in every category. Whether you're competing, practising or shooting at various targets with a semi-auto, single-action or repeating rifle, Norma's rimfire series will deliver what you need.

2020 Norma returns to the competition scene in Biathlon with a new and updated line of high quality rimfire cartridges in .22 l.r. Norma Biathlon Match-22 and Biathlon Sport-22 offer consistent accuracy and precision even below - 20°C. The products are carefully tested in Norma's own cold tunnel up in the Swedish Åmotfors where we can simulate both arctic conditions and quick temperature changes. The new ammunition comes with both newly developed primers and powder and we give the shooter a product with much better flying capabilities than the rest of the market.

NEW BIATHLON MATCH-22

- Competition-grade cartridge with a new standard of accuracy for world-class biathlon shooters
- Unparalleled accuracy and reliability thanks to a fine-tuned production process
- Each lot is inspected and tested to ensure that it meets the very highest standards
- Uniform velocity
- In order to produce the best results for biathlon shooting, these cartridges were developed in a cold chamber (down to -20° C)
- Caliber: .22 long rifle
- Lead bullet, 2.6 g, V_0 320 m/sec (barrel length: 65 cm)

NEW BIATHLON SPORT-22

- Match quality cartridges for all biathletes
- Recommended for both competition and training
- Unparalleled accuracy and reliability thanks to a fine-tuned production process
- Each lot is inspected and tested to ensure that it meets the very highest standards
- In order to produce the best results for biathlon shooting, these cartridges were developed in a cold chamber (down to -20° C)
- Caliber: .22 long rifle
- Lead bullet, 2.6 g, V_0 320 m/sec (barrel length: 65 cm)

Item. No.	Calibre	Type	Bullet type	Weight g	Barrel length mm	Velocity [m/sec] V0	V50	V100	Energy [J] E0	E50	E100	Ctg/box
241 40 40	.22 l.r.	**Biathlon Match-22 ***	LRN	2.6	650	320	294	275	137	115	101	50
241 40 41	.22 l.r.	**Biathlon Sport-22 ***	LRN	2.6	650	320	294	275	137	115	101	50
231 89 90	.22 l.r.	**Match-22**	LRN	2.6	650	330	294	270	142	113	95	50
231 87 16	.22 l.r.	**TAC-22**	LRN	2.6	650	330	294	270	142	113	95	50

* Velocity and Energy at -20°C

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

DEDICATED SINCE 1902

AIRGUN PELLETS

Focus on maximum precision

Norma has expanded its product range with a new airgun pellets line for competition target shooting. At Norma we are continuously searching ways to provide the proper ammunition to sport shooters and plinkers. As the market is changing, it is very important for us to evolve and be flexible without losing our heritage.

In our search of the cutting-edge technologies and products for every category, we have developed different pellets with outstanding results in each field. With our own manufacturing process we control every step in the production line in order to warranty that every batch accomplish our standards.

S-TARGET MATCH

S-TARGET MATCH is the ideal pellet for competition and training with tested grouping of 7mm at 10 meters.

- Competition and training pellet
- Airguns up to 16 Joules
- Ideal for indoor shooting range
- Outstanding accuracy
- Available in cal. 4.5 mm, 0.53 g, 300-count tin and in cal. 5.5 mm, 0.91 g, 200-count tin

Type	Bullet type	Item No.	Calibre	Pellet weight g	gr	Single pack.	Sales pack.
						Ind. tins	
S-TARGET MATCH	Wadcutter	241 14 07	4.5 mm / .177	0.53	8.2	300	3000
		241 14 08	5.5 mm / .22	0.91	14.0	200	2000
						Blistered tins	
S-TARGET MATCH	Wadcutter	241 14 15	4.5 mm / .177	0.53	8.2	300	3000
		241 14 16	5.5 mm / .22	0.91	14.0	200	2000

DEDICATED SINCE 1902

SHOTSHELLS

The professional's choice

NEW

When it's just you, the timer and the next target, you have to know the second before the signal that you can trust your ammo 100 per cent. Norma's shotshells for sports shooters are designed with the best components on the market and analyses in both test environments and on the range, consistent with Norma's strict quality requirements.
Our ammunition should maintain the same high standard, whether you're a top-level Olympic shooter or more of a hobby shooter. Our shot maintains consistent velocity, comfortable recoil and fantastic patterning, even at long distances. Our selection includes competition shells and training ammunition with both lead and steel shot. The choice is yours!

LEAD MAX® MATCH 24

Competition shell for all branches of Olympic clay pigeon shooting. The highest quality components, a perfectly balanced powder charge and a very reliable primer won't disappoint you when pushing the boundaries of competition shooting.

- Red polyethylene case
- 16 mm brass head
- Lead shot

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	2.0 - 2.4 mm	24 g	25/box	400 m/sec

LEAD MAX® MATCH 28

Heavy 28g lead shotshells for sport shooting delivers serious energy for smoking clays, even at long distances. Perfect in all weathers and temperatures.

- Red polyethylene case
- 16 mm brass head
- Lead shot

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	2.2 + 2.4 mm	28 g	25/box	385 m/sec

LEAD MAX® SPORT 24

All-round lead shotshell for challenging sport shooting. Specifically designed for Trap, Skeet and Sporting. Very consistent, low-recoil shell for high-volume shooting.

- Red polyethylene case
- 10 mm brass head
- Lead shot

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	2.0 + 2.4 mm	24 g	25/box	400 m/sec

STEEL MAX® MATCH 24

This exclusive competition shell lives up to the demands of professional Olympic competitors as well as ambitious amateur clay shots. It delivers perfect, consistent patterns every time. Due to its unique wad, the cartridge works perfectly in all weathers and temperatures.

- Red polyethylene case
- 16 mm brass head
- Steel shot

LEAD FREE

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	2.0 - 2.5 mm	24 g	25/box	415 m/sec

STEEL MAX® MATCH 28

This shell, with its 28g of steel shot, is the obvious choice for the sport shooter. It has comfortable recoil and patterns extremely well at long-distances.

- Red polyethylene case
- 16 mm brass head
- Steel shot

LEAD FREE

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	2.2 - 2.75 mm	28 g	25/box	410 m/sec

STEEL MAX® SPORT 24

Classic steel shot for Skeet, Nordic Trap and Sport shooting. Due to its slow-burning powder, recoil is reduced to a comfortable level, allowing for long training sessions.

- Red polyethylene case
- 10 mm brass head
- Steel shot

LEAD FREE

Gauge	Shot sizes	Weight	Pack unit	V1
12/70	2.0 + 2.5 mm	24 g	25/box	400 m/sec

NORMA SHOTSHELLS - DPR DEDICATED PRECISION

Item No.		Gauge	Shot size in mm	Shot number	Shot weight in g	Ctg/box	
77112394	**Lead Max® Match 24**	12/70	2.4	No. 7.5	24	25	
77112424	**Lead Max® Match 24**	12/70	2.2	No. 8	24	25	
77112454	**Lead Max® Match 24**	12/70	2.0	No. 9	24	25	
77112484	**Steel Max® Match 24**	12/70	2.5	No. 7	24	25	LEAD FREE
77112514	**Steel Max® Match 24**	12/70	2.2	No. 8	24	25	LEAD FREE
77112544	**Steel Max® Match 24**	12/70	2.0	No. 9	24	25	LEAD FREE
77112574	**Lead Max® Match 28**	12/70	2.4	No. 7.5	28	25	
77112604	**Lead Max® Match 28**	12/70	2.2	No. 8	28	25	
77112634	**Steel Max® Match 28**	12/70	2.75	No. 6	28	25	LEAD FREE
77112664	**Steel Max® Match 28**	12/70	2.5	No. 7	28	25	LEAD FREE
77112694	**Steel Max® Match 28**	12/70	2.2	No. 8	28	25	LEAD FREE
77112724	**Lead Max® Sport 24**	12/70	2.4	No. 7.5	24	25	
77112754	**Lead Max® Sport 24**	12/70	2.0	No. 9	24	25	
77112784	**Steel Max® Sport 24**	12/70	2.5	No. 7	24	25	LEAD FREE
77112814	**Steel Max® Sport 24**	12/70	2.0	No. 9	24	25	LEAD FREE

GECO-AMMUNITION.COM

GECO - ALL YOU NEED

GECO stands for a modern assortment of cartridges for all hunting and sport applications. Over 100 years of experience in development and production is inside every cartridge. Active hunters and shooters also find that GECO quality comes at an attractive price-to-performance ratio.

GECO rifle cartridges are made for the true sportsman. The line stands out by offering optimal choices for everything from target practice to all worldwide hunting applications. GECO rifle cartridges - All you need. A choice between eight different GECO bullets allows for the best match of cartridge to target: GECO Plus for large game, GECO Express for long-range shooting, GECO Teilmantel (Soft Point) as a true all-around workhorse, GECO Zero as a lead-free bullet with extreme stopping power, the new GECO Star as a lead-free bullet for maximum penetration and GECO Sport, Target FMJ and the new GECO DTX for match shooting and training. A satisfying accuracy and balanced terminal ballistics are just as important to GECO as are innovative products made to the highest quality standards.


Training


Varmint


Light game


Medium game


Heavy game

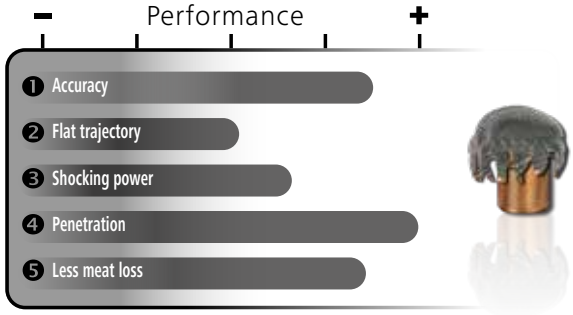
CENTREFIRE RIFLE CARTRIDGES

HUNTING BULLETS

GECO PLUS

THE POWERFUL HUNTING BULLET

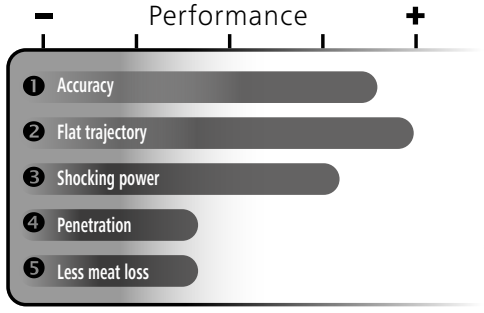
GECO Plus stands for deep penetration and less wasted meat, even when game is on the large side.



GECO EXPRESS

THE FAST HUNTING BULLET

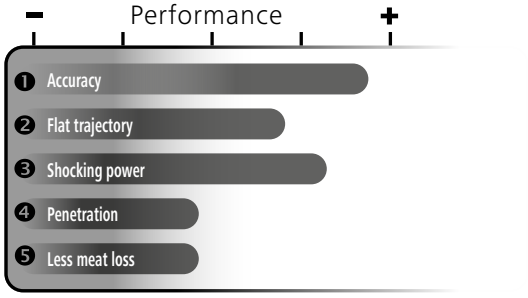
The GECO Express is suited to every field situation when accuracy and power at long range count.



GECO TEILMANTEL

THE CLASSIC HUNTING BULLET

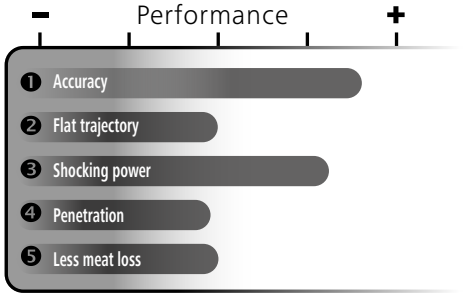
The GECO Teilmantel (Soft Point) has universal applications and is up to almost any situation.



GECO ZERO

THE CLEVER HUNTING BULLET

The GECO Zero is a lead-free bullet with great accuracy and terminal effect - for all game.

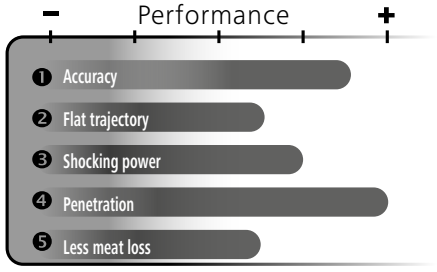


LEAD FREE BULLET

NEW GECO STAR

THE DYNAMIC HUNTING BULLET

The GECO Star is a lead-free expanding bullet with maximum penetration and high retained weight.



LEAD FREE BULLET

Bullet Item No.	Weight Gram Grains	Barrel length mm BC-Value 1)	V 2) E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * 3)		50m	100m	150m	200m	250m	300m	Ctg/box
.223 Rem.																			
NEW **TM**	3.4	600	V[m/sec]	980	909	841	777	715	657	601	⊕	100 m	-0.5	⊕	-2.9	-9.9	-21.7	-39.2	20
241 34 70	53	0.237	E[J]	1633	1404	1203	1026	870	734	614	RZR	185 m	1.5	4.0	3.0	-2.0	11.8	-27.2	
Express	3.6	600	V[m/sec]	1010	926	848	773	703	636	574	⊕	100 m	-1.1	⊕	-2.4	-8.8	-20.3	-37.9	20
231 78 33	56	0.202	E[J]	1836	1543	1294	1076	890	728	593	RZR	192 m	0.9	4.0	3.6	-0.9	-10.4	-26.0	
.243 Win.																			
Express	4.9	600	V[m/sec]	1020	964	910	857	807	759	713	⊕	100 m	-1.2	⊕	-1.8	-6.9	-15.8	-29.0	20
231 78 34	76	0.305	E[J]	2549	2277	2029	1799	1596	1411	1246	RZR	210 m	0.8	4.0	4.3	1.1	-5.8	-16.9	
TM	6.8	600	V[m/sec]	880	834	789	745	703	663	624	⊕	100 m	-0.7	⊕	-3.2	-10.9	-23.5	-41.7	20
212 34 01	105	0.335	E[J]	2633	2365	2117	1887	1680	1495	1324	RZR	179 m	1.3	4.0	2.8	-2.9	-13.5	-29.7	
6.5 x 55 SE																			
TM	10.1	600	V[m/sec]	770	723	679	635	594	554	516	⊕	100 m	-0.2	⊕	-5.2	-16.5	-34.7	-61.0	20
231 78 15	156	0.308	E[J]	2994	2640	2328	2036	1782	1550	1345	RZR	156 m	1.9	4.0	0.8	-8.5	-24.7	-49.0	
Plus	10.1	600	V[m/sec]	750	704	660	618	577	538	501	⊕	100 m	0.0	⊕	-5.6	-17.7	-37.1	-65.1	20
231 78 39	156	0.308	E[J]	2841	2503	2200	1929	1681	1462	1268	RZR	152 m	2.0	4.0	0.3	-9.7	-27.2	-53.2	
.270 Win.																			
Express	8.4	600	V[m/sec]	940	893	847	803	760	719	679	⊕	100 m	-1.0	⊕	-2.5	-8.7	-19.3	-34.5	20
231 78 36	130	0.344	E[J]	3711	3349	3013	2708	2426	2171	1936	RZR	194 m	1.1	4.0	3.6	-0.7	-9.2	-22.4	
TM	9.1	600	V[m/sec]	910	846	785	727	671	618	567	⊕	100 m	-0.8	⊕	-3.2	-11.1	-24.4	-44.2	20
231 78 22	140	0.247	E[J]	3768	3257	2804	2405	2049	1738	1463	RZR	178 m	1.2	4.0	2.8	-3.1	-14.4	-32.3	
Plus	9.7	600	V[m/sec]	850	802	755	710	667	625	586	⊕	100 m	-0.6	⊕	-3.7	-12.3	-26.4	-46.9	20
231 78 37	150	0.316	E[J]	3504	3120	2765	2445	2158	1895	1665	RZR	172 m	1.4	4.0	2.3	-4.3	-16.4	-34.8	
.270 WSM																			
Express	8.4	650	V[m/sec]	940	893	847	803	760	719	679	⊕	100 m	-1.0	⊕	-2.5	-8.7	-19.3	-34.5	20
231 78 38	130	0.344	E[J]	3711	3349	3013	2708	2426	2171	1936	RZR	194 m	1.1	4.0	3.6	-0.7	-9.2	-22.4	
7 x 57																			
LEAD FREE BULLET **ZERO**	8.2	600	V[m/sec]	870	814	760	708	659	611	566	⊕	100 m	-0.6	⊕	-3.6	-12.1	-26.3	-47.1	20
231 88 17	127	0.274	E[J]	3103	2717	2368	2055	1781	1531	1313	RZR	173 m	1.4	4.0	2.4	-4.1	-16.3	-35.0	
TM	10.7	600	V[m/sec]	800	759	720	681	644	608	574	⊕	100 m	-0.4	⊕	-4.4	-14.0	-29.6	-51.9	20
231 85 61	165	0.360	E[J]	3424	3082	2773	2481	2219	1978	1763	RZR	164 m	1.6	4.0	1.6	-6.0	-19.6	-39.9	
7 x 57 R																			
LEAD FREE BULLET **ZERO**	8.2	600	V[m/sec]	820	766	714	664	616	571	527	⊕	100 m	-0.4	⊕	-4.4	-14.4	-30.9	-55.0	20
231 88 18	127	0.274	E[J]	2757	2406	2090	1808	1556	1337	1139	RZR	163 m	1.6	4.0	1.6	-6.4	-20.9	-42.9	
TM	10.7	600	V[m/sec]	750	711	673	636	600	566	533	⊕	100 m	-0.1	⊕	-5.4	-16.8	-35.1	-61.0	20
212 33 55	165	0.360	E[J]	3009	2705	2423	2164	1926	1714	1520	RZR	154 m	1.9	4.0	0.6	-8.9	-25.2	-49.1	
7 mm Rem. Mag.																			
LEAD FREE BULLET **ZERO**	8.2	650	V[m/sec]	980	919	861	805	752	700	651	⊕	100 m	-1.0	⊕	-2.3	-8.3	-18.7	-34.2	20
231 88 68	127	0.274	E[J]	3938	3463	3039	2657	2319	2009	1738	RZR	197 m	1.0	4.0	3.8	-0.3	-8.7	-22.1	
Express	10.0	650	V[m/sec]	890	852	816	780	746	712	679	⊕	100 m	-0.8	⊕	-2.9	-9.8	-21.1	-37.3	20
231 78 43	155	0.418	E[J]	3961	3630	3329	3042	2783	2535	2305	RZR	186 m	1.2	4.0	3.1	-1.8	-11.1	-25.2	
Plus	11.0	650	V[m/sec]	866	825	785	746	709	672	637	⊕	100 m	-0.7	⊕	-3.3	-11.0	-23.6	-41.6	20
231 78 44	170	0.375	E[J]	4125	3743	3389	3061	2765	2484	2232	RZR	178 m	1.3	4.0	2.7	-3.0	-13.6	-29.7	
.280 Rem.																			
TM	10.7	600	V[m/sec]	830	788	748	709	671	634	598	⊕	100 m	-0.5	⊕	-3.9	-12.6	-26.8	-47.2	20
211 75 84	165	0.360	E[J]	3686	3322	2993	2689	2409	2150	1913	RZR	170 m	1.5	4.0	2.1	-4.6	-16.8	-35.2	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

Bullet Item No.	Weight Gram Grains	Barrel length mm BC-Value 1)	V 2) E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * 3)		50m	100m	150m	200m	250m	300m	Ctg/box
7 x 64																			
LEAD FREE BULLET **ZERO**	8.2	600	V[m/sec]	940	881	824	770	718	668	620	⊕	100 m	-0.9	⊕	-2.7	-9.6	-21.2	-38.3	20
231 88 19	127	0.274	E[J]	3623	3182	2784	2431	2114	1830	1576	RZR	188 m	1.1	4.0	3.3	-1.5	-11.1	-26.2	
Express	10.0	600	V[m/sec]	880	843	806	771	737	703	670	⊕	100 m	-0.8	⊕	-3.0	-10.1	-21.8	-38.4	20
231 78 40	155	0.418	E[J]	3872	3553	3248	2972	2716	2471	2245	RZR	184 m	1.2	4.0	3.0	-2.1	-11.7	-26.3	
TM	10.7	600	V[m/sec]	840	798	757	718	679	642	607	⊕	100 m	-0.6	⊕	-3.7	-12.2	-26.0	-45.8	20
212 33 12	165	0.360	E[J]	3775	3407	3066	2758	2467	2205	1971	RZR	172 m	1.4	4.0	2.3	-4.2	-16.0	-33.8	
Plus	11.0	600	V[m/sec]	830	790	751	713	677	641	607	⊕	100 m	-0.5	⊕	-3.8	-12.5	-26.5	-46.5	20
231 78 41	170	0.375	E[J]	3789	3433	3102	2796	2521	2260	2026	RZR	171 m	1.5	4.0	2.2	-4.4	-16.4	-34.4	
7 x 65 R																			
LEAD FREE BULLET **ZERO**	8.2	600	V[m/sec]	890	833	778	726	676	627	581	⊕	100 m	-0.7	⊕	-3.3	-11.3	-24.7	-44.4	20
231 88 20	127	0.274	E[J]	3248	2845	2482	2161	1874	1612	1384	RZR	177 m	1.3	4.0	2.7	-3.3	-14.7	-32.3	
TM	10.7	600	V[m/sec]	800	759	720	681	644	608	574	⊕	100 m	-0.4	⊕	-4.4	-14.0	-29.6	-51.9	20
212 26 85	165	0.360	E[J]	3424	3082	2773	2481	2219	1978	1763	RZR	164 m	1.6	4.0	1.6	-6.0	-19.6	-39.9	
Plus	11.0	600	V[m/sec]	810	771	732	695	659	624	590	⊕	100 m	-0.4	⊕	-4.2	-13.4	-28.3	-49.5	20
231 78 42	170	0.375	E[J]	3609	3269	2947	2657	2389	2142	1915	RZR	167 m	1.6	4.0	1.9	-5.3	-18.2	-37.4	
.308 Win.																			
LEAD FREE BULLET **ZERO**	8.8	600	V[m/sec]	870	803	739	679	621	566	515	⊕	100 m	-0.6	⊕	-3.9	-13.2	-28.8	-52.2	20
231 88 23	136	0.229	E[J]	3330	2837	2403	2029	1697	1410	1167	RZR	168 m	1.4	4.0	2.1	-5.2	-18.9	-40.3	
LEAD FREE BULLET **STAR**	10.7	600	V[m/sec]	783	746	709	673	638	605	573	⊕	100 m	-0.3	⊕	-4.6	-14.6	-30.7	-53.5	20
NEW 241 38 33	165	0.388	E[J]	3280	2977	2689	2423	2178	1958	1757	Z RZR P	162 m	1.7	4.0	1.5	-6.5	-20.6	-41.4	
Express	10.7	600	V[m/sec]	825	788	752	717	683	649	617	⊕	100 m	-0.5	⊕	-3.8	-12.4	-26.3	-46.0	20
231 78 04	165	0.404	E[J]	3641	3322	3025	2750	2496	2253	2037	RZR	171 m	1.5	4.0	2.2	-4.4	-16.2	-33.9	
TM	11.0	600	V[m/sec]	790	742	696	652	610	569	530	⊕	100 m	-0.3	⊕	-4.8	-15.4	-32.6	-57.4	20
212 34 28	170	0.305	E[J]	3433	3028	2664	2338	2047	1781	1545	RZR	159 m	1.7	4.0	1.1	-7.5	-22.7	-45.5	
Plus	11.0	600	V[m/sec]	780	727	677	629	582	538	497	⊕	100 m	-0.2	⊕	-5.2	-16.6	-35.3	-62.5	20
231 78 05	170	0.274	E[J]	3346	2907	2521	2176	1863	1592	1359	RZR	156 m	1.8	4.0	0.8	-8.5	-25.2	-50.5	
.30-06																			
LEAD FREE BULLET **ZERO**	8.8	600	V[m/sec]	920	851	785	722	662	605	551	⊕	100 m	-0.8	⊕	-3.2	-11.1	-24.7	-45.0	20
231 88 21	136	0.229	E[J]	3724	3186	2711	2294	1928	1611	1336	RZR	178 m	1.2	4.0	2.8	-3.1	-14.7	-33.0	
LEAD FREE BULLET **STAR**	10.7	600	V[m/sec]	824	786	750	714	680	646	614	⊕	100 m	-0.5	⊕	-3.8	-12.5	-26.5	-46.4	20
NEW 241 38 35	165	0.397	E[J]	3633	3305	3009	2727	2474	2233	2017	RZR	171 m	1.5	4.0	2.2	-4.5	-16.4	-34.3	
Express	10.7	600	V[m/sec]	864	826	789	753	718	683	650	⊕	100 m	-0.7	⊕	-3.2	-10.8	-23.1	-40.8	20
231 78 06	165	0.404	E[J]	3994	3650	3330	3033	2758	2496	2260	RZR	179 m	1.3	4.0	2.7	-2.8	-13.2	-28.8	
TM	11.0	600	V[m/sec]	840	791	743	697	653	610	569	⊕	100 m	-0.5	⊕	-3.9	-12.9	-27.6	-49.0	20
212 33 20	170	0.305	E[J]	3881	3441	3036	2672	2345	2047	1781	RZR	169 m	1.5	4.0	2.1	-4.9	-17.6	-37.0	
Plus	11.0	600	V[m/sec]	835	780	728	677	629	583	539	⊕	100 m	-0.5	⊕	-4.2	-13.7	-29.4	-52.4	20
231 78 07	170	0.274	E[J]	3835	3346	2915	2521	2176	1869	1598	RZR	166 m	1.5	4.0	1.9	-5.7	-19.4	-40.4	

Bullet Item No.	Weight Gram Grains	Barrel length mm BC-Value 1)	V 2) E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * 3)		50m	100m	150m	200m	250m	300m	Ctg/box
.300 Win. Mag.																			
ZERO	8.8	650	V[m/sec]	1010	936	866	799	736	675	618	⊕	100 m	-1.1	⊕	-2.2	-8.2	-18.8	-34.8	20
231 88 22	136	0.229	E[J]	4488	3855	3300	2809	2383	2005	1680	RZR	197 m	0.9	4.0	3.8	-0.2	-8.8	-22.8	
STAR	10.7	650	V[m/sec]	921	879	839	802	766	729	693	⊕	100 m	-0.9	⊕	-2.6	-9.0	-19.5	-34.7	20
NEW 241 38 36	165	0.387	E[J]	4538	4134	3766	3441	3139	2843	2569	RZR	193 m	1.1	4.0	3.5	-0.9	-9.5	-22.6	
Express	10.7	650	V[m/sec]	970	929	889	850	812	775	740	⊕	100 m	-1.1	⊕	-2.0	-7.5	-16.6	-29.9	20
231 78 08	165	0.404	E[J]	5034	4617	4228	3865	3527	3213	2930	RZR	205 m	0.9	4.0	4.0	0.6	-6.5	-17.8	
TM	11.0	650	V[m/sec]	950	896	845	795	748	701	657	⊕	100 m	-1.0	⊕	-2.5	-8.8	-19.6	-35.3	20
211 75 76	170	0.305	E[J]	4964	4415	3927	3476	3077	2703	2374	RZR	193 m	1.0	4.0	3.6	-0.8	-9.5	-23.3	
Plus	11.0	650	V[m/sec]	940	881	824	770	718	668	620	⊕	100 m	-0.9	⊕	-2.7	-9.6	-21.2	-38.3	20
231 78 09	170	0.274	E[J]	4860	4269	3734	3261	2835	2454	2114	RZR	188 m	1.1	4.0	3.3	-1.5	-11.1	-26.2	
8 x 57 JS																			
ZERO	9.0	600	V[m/sec]	900	829	760	695	636	581	530	⊕	100 m	-0.7	⊕	-3.6	-12.2	-27.0	-49.0	20
231 89 47	139	0.225	E[J]	3645	3093	2599	2174	1820	1519	1264	RZR	173 m	1.3	4.0	2.5	-4.2	-16.9	-36.9	
TM	12.0	600	V[m/sec]	790	731	674	621	570	521	476	⊕	100 m	-0.2	⊕	-5.2	-16.8	-36.0	-64.3	20
212 33 39	185	0.245	E[J]	3745	3206	2726	2314	1949	1629	1359	RZR	155 m	1.8	4.0	0.7	-8.9	-26.1	-52.4	
Plus	12.7	600	V[m/sec]	750	709	670	631	595	559	525	⊕	100 m	-0.1	⊕	-5.4	-17.0	-35.5	-61.9	20
231 78 45	196	0.346	E[J]	3572	3192	2851	2528	2248	1984	1750	RZR	154 m	1.9	4.0	0.6	-9.0	-25.5	-50.0	
8 x 57 JRS																			
ZERO	9.0	600	V[m/sec]	850	779	712	651	594	542	494	⊕	100 m	-0.5	⊕	-4.4	-14.6	-31.7	-57.3	20
231 89 48	139	0.225	E[J]	3251	2731	2281	1907	1588	1322	1098	RZR	163 m	1.5	4.0	1.6	-6.6	-21.8	-45.4	
TM	12.0	600	V[m/sec]	760	702	647	595	545	498	455	⊕	100 m	0.0	⊕	-5.9	-18.7	-39.8	-71.0	20
212 33 98	185	0.245	E[J]	3466	2957	2512	2124	1782	1488	1242	RZR	150 m	2.0	4.0	0.1	-10.8	-29.9	-59.1	
Plus	12.7	600	V[m/sec]	710	670	632	595	560	526	493	⊕	100 m	0.2	⊕	-6.4	-19.7	-40.9	-70.9	20
231 78 46	196	0.346	E[J]	3201	2851	2536	2248	1991	1757	1543	RZR	147 m	2.2	4.0	-0.4	-11.8	-30.9	-59.0	
9.3 x 62																			
ZERO	11.9	600	V[m/sec]	870	806	746	688	632	580	530	⊕	100 m	-0.6	⊕	-3.8	-12.8	-28.0	-50.6	20
231 89 50	184	0.241	E[J]	4504	3865	3311	2816	2377	2002	1671	RZR	170 m	1.4	4.0	2.2	-4.8	-18.0	-38.5	
Express	16.5	600	V[m/sec]	760	724	689	655	622	591	560	⊕	100 m	-0.2	⊕	-5.0	-15.8	-32.9	-57.0	20
231 78 47	255	0.398	E[J]	4765	4324	3916	3539	3192	2882	2587	RZR	158 m	1.9	4.0	1.0	-7.7	-22.8	-44.9	
TM	16.5	600	V[m/sec]	760	709	660	612	568	525	484	⊕	100 m	-0.1	⊕	-5.6	-17.8	-37.6	-66.3	20
231 18 42	255	0.277	E[J]	4765	4147	3594	3090	2662	2274	1933	RZR	152 m	1.9	4.0	0.4	-9.8	-27.6	-54.4	
Plus	16.5	600	V[m/sec]	740	698	658	619	581	545	510	⊕	100 m	0.0	⊕	-5.7	-17.8	-37.2	-64.9	20
231 78 48	255	0.335	E[J]	4518	4019	3572	3161	2785	2450	2146	RZR	152 m	2.0	4.0	0.3	-9.8	-27.2	-52.8	
9.3 x 74 R																			
ZERO	11.9	600	V[m/sec]	825	764	705	648	595	545	497	⊕	100 m	-0.4	⊕	-4.6	-15.0	-32.4	-58.1	20
231 89 51	184	0.241	E[J]	4050	3473	2957	2498	2106	1767	1470	RZR	161 m	1.6	4.0	1.4	-7.0	-22.4	-46.1	
TM	16.5	600	V[m/sec]	740	690	641	595	551	509	470	⊕	100 m	0.1	⊕	-6.1	-19.1	-40.2	-70.9	20
212 33 47	255	0.277	E[J]	4518	3928	3390	2921	2505	2137	1822	RZR	149 m	2.1	4.0	-0.1	-11.1	-30.2	-58.9	
Plus	16.5	600	V[m/sec]	730	688	648	610	573	537	502	⊕	100m	0.1	⊕	-5.9	-18.5	-38.5	-67.1	20
231 79 44	255	0.335	E[J]	4396	3905	3464	3070	2709	2379	2079	RZR	150 m	2.1	4.0	0.0	-10.5	-28.6	-55.1	

For more centrefire rifle cartridges, please see our listings in the RWS and Norma sections of this catalogue.

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

THE DYNAMIC LEADFREE HUNTING BULLET

LEAD FREE BULLET

GECO STAR – the lead-free expanding bullet with maximum penetration and high retained weight. Perfectly matched to roe, boar and stag.

Available in
.308 Win., .30-06 and .300 Win. Mag.

GECO - ALL YOU NEED

geco-ammunition.com

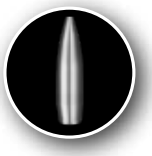
SPORT

Shoot better with constant practice

The GECO SPORT cartridge is designed especially for practice and competition. Thanks to its balanced loading, the GECO SPORT offers a comfortable shooting experience. The precision-engineered hollow-point bullet guarantees outstanding accuracy, even at longer ranges. The nickel-plated jacket reduces metal fouling in the bore to assure consistent muzzle velocities.

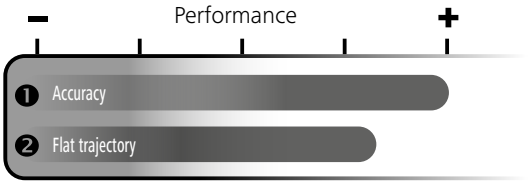
In addition, this plating minimizes barrel heating as well as intensive cleaning protocols. The smart 50-round packaging offers a good price-to-performance ratio. Now there are no more excuses to keep you off the practice range! This cartridge is not suitable for hunting applications.

GECO SPORT



THE MATCH BULLET

GECO Sport is ideal for match shooting as well as routine practice sessions.



Bullet Item No.	Weight Gram Grains	Barrel length mm BC-Value 1)	V 2) E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * 3)		50m	100m	150m	200m	250m	300m	Ctg/box
7 x 64																			
Sport	9.0	600	V[m/sec]	916	870	825	782	740	699	660	⊕	100 m	-0.9	⊕	-2.7	-9.5	-20.7	-37.0	50
241 17 99	139	0.345	E[J]	3776	3406	3063	2752	2464	2199	1960	RZR	188 m	1.1	4.0	3.3	-1.5	-10.7	-25.0	
.308 Win.																			
Sport	9.5	600	V[m/sec]	860	809	760	711	664	620	579	⊕	100 m	-0.6	⊕	-3.6	-12.1	-26.2	-46.8	50
241 17 98	147	0.300	E[J]	3513	3109	2744	2401	2094	1826	1592	RZR	172 m	1.4	4.0	2.3	-4.2	-16.3	-34.8	
.30-06																			
Sport	9.5	600	V[m/sec]	940	886	834	784	735	687	642	⊕	100 m	-0.9	⊕	-2.6	-9.2	-20.3	-36.7	50
241 17 96	147	0.300	E[J]	4197	3729	3304	2920	2566	2242	1958	RZR	190 m	1.1	4.0	3.4	-1.2	-10.3	-24.7	
.300 Win. Mag.																			
Sport	9.5	650	V[m/sec]	1012	955	900	848	797	748	700	⊕	100 m	-1.2	⊕	-1.9	-7.2	-16.3	-29.9	50
241 17 97	147	0.300	E[J]	4865	4332	3848	3416	3017	2658	2328	RZR	207 m	0.8	4.0	4.1	0.8	-6.3	-17.9	
8 x 57 JS																			
Sport	12.1	600	V[m/sec]	810	769	729	690	653	616	581	⊕	100 m	-0.4	⊕	-4.2	-13.6	-28.7	-50.3	50
241 18 00	187	0.359	E[J]	3969	3578	3215	2880	2580	2296	2042	RZR	166 m	1.6	4.0	1.8	-5.5	-18.6	-38.3	
9.3 x 62																			
Sport	12.7	600	V[m/sec]	867	812	760	709	661	614	570	⊕	100 m	-0.6	⊕	-3.6	-12.1	-26.3	-47.0	50
241 18 01	196	0.281	E[J]	4773	4187	3668	3192	2774	2394	2063	RZR	173 m	1.4	4.0	2.4	-4.1	-16.2	-34.9	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

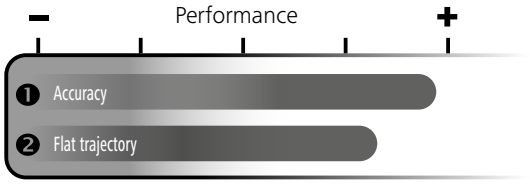
TARGET FMJ

Frequent practice at the range is a must; plus, it is a lot of fun! The GECO Target FMJ line makes economical shooting possible thanks to its practical 50-pack. The GECO Target FMJ bullet is especially suitable for rapid fire in semiautomatic firearms. Top accuracy is guaranteed, something that is appreciated especially by IPSC competitors. With its especially attractive price-to-performance ratio, the GECO Target FMJ line is especially well-suited to shooters with intense training schedules. The tombac jacket of the GECO Target FMJ bullet starkly reduces barrel fouling, thereby increasing cleaning intervals. Now nothing stands between you and success!

GECO TARGET FMJ

THE TRAINING BULLET - MILITARY

GECO Target FMJ is especially suitable for use in rapid-fire exercises with semiautomatic rifles. Top accuracy is guaranteed. Ideal for IPSC matches.

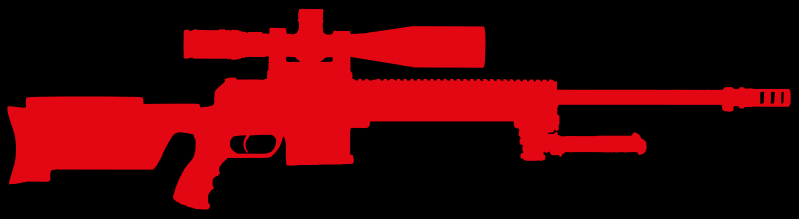


Bullet Item No.	Weight Gram Grains	Barrel length mm BC-Wert 1)	V 2) E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * 3)		50m	100m	150m	200m	250m	300m	Ctg/box
4.6 x 30																			
NEW **Target FMJ**	2.6	42	V[m/sec]	695	645	597	552	508	468	432	⊕	100 m	0.5	⊕	-7.4	-22.8	-47.8	-84.1	50
241 16 76	40	0.268	E[J]	628	541	463	396	335	285	243	RZR	142 m	2.5	4.0	-1.3	-14.7	-37.8	-72.1	
.223 Rem.																			
Target FMJ	3.6	600	V[m/sec]	1010	948	889	832	778	726	676	⊕	100 m	-1.1	⊕	-2.0	-7.6	-17.0	-31.3	50
231 75 61	55	0.275	E[J]	1837	1618	1423	1247	1090	949	822	RZR	198 m	0.7	3.7	3.5	-0.2	-7.9	-20.3	
Target FMJ	4.1	600	V[m/sec]	950	903	857	813	770	728	688	⊕	100 m	-1.0	⊕	-2.4	-8.5	-18.6	-33.4	50
231 75 62	63	0.345	E[J]	1864	1683	1516	1364	1224	1095	977	RZR	192 m	0.9	3.8	3.3	-0.9	-9.1	-22.1	
7.62 x 39																			
Target FMJ	8.0	600	V[m/sec]	740	700	662	625	589	555	522	⊕	100 m	0.0	⊕	-5.6	-17.5	-36.5	-63.5	50
231 78 12	124	0.355	E[J]	2245	2009	1797	1602	1422	1263	1117	RZR	153 m	2.0	4.0	0.4	-9.4	-26.4	-51.4	
.308 Win.																			
Target FMJ	9.5	600	V[m/sec]	865	826	787	750	714	679	645	⊕	100 m	-0.7	⊕	-3.3	-10.9	-23.3	-41.1	50
240 70 05	147	0.392	E[J]	3573	3258	2957	2686	2434	2201	1987	RZR	179 m	1.3	4.0	2.7	-2.9	-13.3	-29.1	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

DTX



DECISION MADE EASY!

The all new GECO DTX line offers FMJ training ammunition in 3 calibers and shooter-friendly packagings for a fair price!
9mm Luger FMJ, .223 Rem. FMJ and .308 Win. FMJ
GECO DTX #UseMoreAmmo

#UseMoreAmmo DTX GECO

GECO - ALL YOU NEED

geco-ammunition.com

NEW

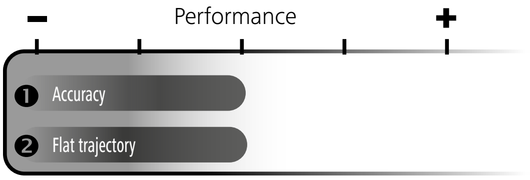
DTX

The aim of the GECO DTX line is to meet the needs of shooters with high ammunition consumption. The good price-to-performance ratio makes the GECO DTX, which is offered in the popular calibers of .223 Rem., .308 Win. and 9 mm Luger, a well-balanced training cartridge – with trusted GECO quality, of course! The FMJ bullet delivers satisfactory accuracy for regular practice sessions and optimally prepares the shooter for competition.

GECO DTX

THE PERFECT TRAINING BULLET

The GECO DTX was conceived especially for users with high ammunition consumption and is particularly suitable for simple training.



Information on the GECO DTX in 9 mm Luger can be found on page 107.

Bullet Item No.	Weight Gram Grains	Barrel length mm BC-Value 1)	V 2) E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * 3)		50m	100m	150m	200m	250m	300m	Ctg/box
.223 Rem.																			
NEW **DTX**	3.6	600	V[m/sec]	988	919	854	791	732	675	621	⊕	100 m	-0.5	⊕	-2.8	-9.6	-20.9	-37.7	150
241 24 41	55	0.243	E[J]	1755	1518	1311	1125	963	819	693	RZR	187 m	1.5	4.0	3.2	-1.6	-10.9	-25.7	
.308 Win.																			
NEW **DTX**	9.7	600	V[m/sec]	830	793	756	721	687	653	621	⊕	100 m	-0.1	⊕	-4.2	-13.1	-27.2	-47.1	50
241 36 99	150	0.423	E[J]	3343	3049	2776	2523	2288	2070	1869	RZR	167 m	1.9	4.0	1.8	-5.1	-17.2	-35.0	

1) BC-Value = Ballistic coefficient 2) V = Velocity, E = Energy 3) RZR = Recommended Zero Range

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

György Batki
Winner of the World Police and Fire Games, Service Pistol, 2015
3rd place, IPSC European Championship, Standard Division, 2010

'I have been shooting GECO ammo in .40 S&W and 9x19 since I was 18. This is ammo I can trust and rely on because it shoots so accurately. I am on the Hungarian National Police team, and we shoot 8.0 g (124 gr) GECO 9x19 in training as well as competition – with nothing less than success!'

HANDGUN CARTRIDGES

NEW ACTION EXTREME

Thanks to its specialized combination of materials and design, this monolithic copper bullet with enclosed hollow point delivers extreme energy transfer.

FMJ (FULL METAL JACKET)

The full metal jacket bullet may be economically produced thanks to its simple construction. It is especially interesting for the shooter on an intense training programme.

JACKETED HOLLOW POINT

The hollow point bullet is the perfect choice when absolute accuracy is a must. Top shooters have relied upon this bullet style for years.

COPPER-PLATED LEAD ROUND NOSE

Adds to the advantages of the lead round nose bullet by reducing smoke and noxious emissions.

WAD CUTTER

The wadcutter bullet's shoulder stabilisation gives excellent accuracy even at very low velocities.

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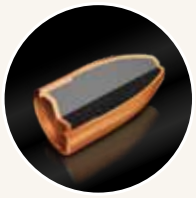
HEXAGON

Our hollow point Hexagon bullet is primarily designed to deliver top accuracy and any expansion is seen as merely coincidental. This non-expanding bullet unites the advantages of a hollow-point design with a sealed bullet base for optimal accuracy.



ENCAPSULATED FULL METAL JACKET

This is a further development of the standard FMJ bullet and features a sealed bullet base. This bullet stands out with reduced smoke and noxious emissions, making it particularly suitable for use in indoor ranges.

SOFT POINT

The soft point bullet is, by design, a compromise between full metal jacket economy and hollow point performance.

LEAD ROUND NOSE

The traditional lead round nose bullet gives an excellent fit to the rifling and protects the barrel by reducing bore friction.

Health issues can arise due to lead exposure for both the shooter and range personnel. Thanks to the lead-free GreenFire primer technology, used for years in NATO-specification ammunition, lead can no longer contaminate the atmosphere around the shooter. Additionally, the sealed bullet base keeps lead particles from being released.

In order to simplify the choice of cartridge, each package features pictographic application recommendations:

Static target shooting

Dynamic target shooting

Hunting

Self-defence

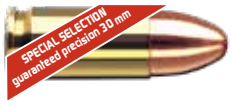
GECO - REVOLVER CARTRIDGES

	Item No.	Calibre	Bullet	Bullet weight g	Bullet weight gr	Primer	Barrel Length (mm)*	Velocity (m/sec) V_0	V_{10}	V_{25}	V_{50}	Energy (Joules) E_0	E_{10}	E_{25}	E_{50}	Ctg/ box
	212 76 01	**.32 S&W long WC**	Wad Cutter	6.5	100	Anvil	150	222	215	205	190	160	150	137	117	50
	231 77 16	**.38 Special**	Full Metal Jacket Flat Nose	10.2	158	Anvil	150	295	287	281	278	435	421	401	373	50
	231 77 17	**.38 Special**	Jacketed Hollow Point	10.2	158	Anvil	150	295	285	273	255	444	415	379	331	50
	231 77 18	**.38 Special**	Lead Round-Nose	10.2	158	Anvil	150	275	269	263	260	386	369	353	345	50
 GreenFire Technology	231 91 00	**.38 Special**	Lead Round-Nose, copper-plated	10.2	158		150	275	269	263	260	386	369	353	345	50
	231 75 36	**.38 Special WC**	Wad Cutter	9.6	146	Anvil	150	265	255	241	230	337	311	278	233	50
	231 77 20	**.357 Magnum**	Full Metal Jacket Flat Nose	10.2	158	Anvil	150	395	386	374	354	796	761	713	638	50
	231 77 21	**.357 Magnum**	Jacketed Hollow Point	10.2	158	Anvil	150	395	381	363	337	796	741	672	581	50
	240 99 86	**.357 Magnum**	Hexagon	11.7	180	Anvil	150	340	323	309	286	676	610	558	479	50
	240 29 31	**.44 Rem. Mag.**	Full Metal Jacket Flat Nose	14,9	230	Anvil	150	368	362	354	342	1009	979	936	873	50
	231 77 22	**.44 Rem. Mag.**	Soft Point	15.6	240	Anvil	150	445	435	420	395	1540	1471	1372	1213	50
NEW 	240 81 24	**.44 Rem. Mag.**	Hexagon	19.4	300	Anvil	150	277	275	270	267	744	734	707	692	50

GECO - PISTOL CARTRIDGES

	Item No.	Calibre	Bullet	Bullet weight g	Bullet weight gr	Primer	Barrel Length (mm)*	Velocity (m/sec) V_0	V_{10}	V_{25}	V_{50}	Energy (Joules) E_0	E_{10}	E_{25}	E_{50}	Ctg/ box
	212 32 07	**6.35 Browning**	Full Metal Jacket	3.2	49	Anvil	60	208	205	201	193	69	67	65	60	50
	231 77 03	**7.65 Browning**	Full Metal Jacket	4.75	73	Anvil	150	300	294	285	273	214	205	194	177	50
NEW 	241 69 97	**9mm Browning kurz**	Action EXTREME	5.5	85	Anvil	150	390	378	360	336	418	394	356	310	20
	231 77 05	**9mm Browning kurz**	Full Metal Jacket	6.15	95	Anvil	150	300	294	287	276	277	266	253	234	50
	231 85 55	**9mm Makarov**	Full Metal Jacket	6.15	95	Anvil	150	310	304	296	283	288	277	263	240	50

* CIP-proved test-barrel

	Item No.	Calibre	Bullet	Bullet weight g	Bullet weight gr	Primer	Barrel Length (mm) *	Velocity (m/sec) V_0	V_{10}	V_{25}	V_{50}	Energy (Joules) E_0	E_{10}	E_{25}	E_{50}	Ctg/ box	
	240 81 23	**9mm Luger**	Action EXTREME	7.0	108	Anvil	150	400	391	377	356	560	535	497	444	20	NEW
	241 79 57	**9mm Luger**	Full Metal Jacket DTX	7.5	115	Anvil	150	370	362	349	332	513	491	457	413	50	NEW
	231 86 29	**9mm Luger**	Full Metal Jacket	8.0	124	Anvil	125	360	350	337	319	518	490	454	407	50	
	231 82 21	**9mm Luger**	Encapsulated Full Metal Jacket	8.0	124		125	360	351	340	325	518	493	462	423	50	
	231 81 95	**9mm Luger**	Lead Round-Nose, copper-plated	8.0	124		125	360	350	337	319	518	490	454	407	50	
	240 99 85	**9mm Luger**	Hexagon	8.0	124	Anvil	150	350	341	328	311	490	465	430	387	50	
	240 14 20	**9mm Luger**	Full Metal Jacket	8.0	124	Anvil	125	360	350	337	319	518	490	454	407	50	
	231 77 07	**9mm Luger**	Jacketed Hollow Point	7.5	115	Anvil	150	370	355	335	319	513	472	422	407	50	
	240 29 32	**9mm Luger**	Jacketed Hollow Point	8.0	124		150	362	355	344	330	524	503	475	435	20	
	231 77 08	**9mm Luger**	Full Metal Jacket Flat Nose	10.0	154	Anvil	150	283	278	270	259	400	386	366	336	50	
	231 75 09	**9x21**	Full Metal Jacket	8.0	124	Anvil	150	360	351	340	325	518	493	462	423	50	
	241 08 56	**9x21**	Lead Round Nose, copper-plated	8.0	124	Anvil	150	360	351	338	321	518	493	423	412	50	
	231 77 11	**.38 Super Auto**	Full Metal Jacket	8.0	124	Anvil	150	430	411	385	348	740	675	591	485	50	
	240 33 52	**.40 S&W**	Lead Round Nose, copper-plated	10.7	165		150	353	348	340	329	667	647	619	579	50	
	231 77 12	**.40 S&W**	Full Metal Jacket Flat Nose	11.7	180	Anvil	150	310	306	301	292	562	548	530	497	50	
	240 44 64	**.45 Auto**	Hexagon	13.0	200	Anvil	150	261	260	258	254	441	437	431	418	50	
	231 77 14	**.45 Auto**	Full Metal Jacket	14.9	230	Anvil	150	260	256	250	240	503	488	466	429	50	
	240 30 90	**.45 Auto**	Lead Round Nose, copper-plated	14.9	230		150	261	259	257	253	508	501	492	476	50	
	231 77 15	**.45 Auto**	Jacketed Hollow Point	14.9	230	Anvil	150	260	256	250	240	503	488	466	429	50	

* CIP-proved test-barrel

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SHOTSHELLS

COATED COMPETITION SLUG BLACK 26

- Leaves almost no lead fouling in the barrel thanks to its Teflon-coated slug
- Absence of lead fumes leads to low air pollution
- Balanced powder charge provides excellent reliability and low recoil
- Shorter, transparent case allows for a higher capacity in tubular magazines
- The high velocity of 450 m/sec (1475 fps) makes leading moving targets unnecessary
- Practical 100-round pack with carry strap
- Low recoil

Low recoil

Item No.	Type	Gauge	Shot weight in g	Ctg/box	$V_{2.5\,m}$
231 76 25	**CCS BLACK 26**	12/67.5	26.0	100	450 m/sec

COATED COMPETITION SLUG RED 28

NEW

- Leaves almost no lead fouling in the barrel thanks to its Teflon-coated slug
- Absence of lead fumes leads to low air pollution
- Special powder charge for a safe use in sensitive semi-autos
- Shorter, transparent case allows for a higher capacity in tubular magazines
- The high velocity of 420 m/sec (1377 fps) makes leading moving targets unnecessary
- Practical 100-round pack with carry strap

Optimized for sensitive semi-autos

Item No.	Type	Gauge	Shot weight in g	Ctg/box	$V_{2.5\,m}$
241 02 47	**CCS RED 28**	12/67.5	28.0	100	420 m/sec

COATED COMPETITION BUCK SHOT

These buck shot cartridges have been especially developed for IPSC matches which include mandatory buck shot stages. This cartridge has the following specific properties:

- 9 pellets of 8 mm diameter for the best possible patterns
- Nickel-plated shot. This reduces flyers even with tighter chokes.
- Very tight pattern due to the use of a shot cup with short slits
- Short case length for higher capacity in tubular magazines
- Reliable function even in sensitive semi-autos
- Low recoil

Nickel-plated Shot

Item No.	Type	Gauge	Shot weight in g	Ctg/box	$V_{2.5\,m}$
240 02 32	**CC BUCK SHOT**	12/65	27.0	25	410 m/sec

DYNAMIC BIRD SHOT

The utility of this competition cartridge includes all disciplines of dynamic shotgun sports. Especially loaded for IPSC and falling plate matches, this cartridge has the following properties:

- 2 types - ideal for varying shot distances
- Ideal combination of pattern density and shot weight
- Very tight pattern due to the use of a shot cup with short slits
- Short case length for higher capacity in tubular magazines
- Reliable function even in sensitive semi-autos
- Low recoil

Very tight patterns

Item No.	Type	Gauge	Shot weight in g	Shot sizes	Ctg/box	$V_{2.5\,m}$
240 02 35	**DYNAMIC BIRD SHOT 29**	12/65	29.0	2.75 mm	25	400 m/sec
240 02 34	**DYNAMIC BIRD SHOT 31**	12/65	31.0	2.9 mm	25	390 m/sec

RIMFIRE CARTRIDGES

RIFLE & SEMI-AUTO

- Good performance at a favourable price
- Training and practice ammunition for more modest requirements
- All-purpose cartridges for beginners
- GECO Rifle: Reliable function in self-loading rifles
- GECO Semi-Auto: Optimised for semi-automatic rifles and pistols

Item No.	Calibre	Type	Bullet	Weight	Barrel length	Velocity m/sec			Energy joules			Point of impact in cm with scope mounted 5cm above bore axis					
				g	mm	V_0	V_{50}	V_{100}	E_0	E_{50}	E_{100}	Sighting-in distance	25 m	50 m	75 m	100 m	Ctg/box
213 25 40	.22 l.r.	**RIFLE**	LRN	2.6	650	330	295	270	142	113	95	50 m	0.7	⊕	-7.8	-23.1	50
231 85 99	.22 l.r.	**SEMI-AUTO**	LRN	2.6	420	350	306	279	159	122	101	50 m	0.4	⊕	-6.9	-21.1	50

AIR GUN PELLETS

DIABOLO

It is easy for beginners to discover the joy of shooting when they start out with an air gun. Even old hands are enchanted with the level of accuracy attainable in this shooting sport. The GECO Diabolo has been specially developed for beginners and hobbyists. Those who shoot a lot need a precise pellet at a favourable price. The standardised manufacturing steps used to make these smooth-skirted pellets guarantee the necessary degree of accuracy at a very low price.

- Developed for beginners and hobbyists
- Accurate yet affordable
- Reliable accuracy
- Smooth skirt

SUPERPOINT

The Geco Superpoint is a smooth-skirted air gun pellet with a conical point for high impact and deep penetration. It is suitable for silhouette shooting as well as for small pest control. The optimal centre of balance makes for good accuracy at a favourable price.

- For casual shooters
- Accurate yet affordable
- Reliable accuracy
- Conical point with smooth skirt

Item No.	Type	Calibre mm	Weight g	Length mm	Single pack.	Sales pack.
213 74 53	**DIABOLO**	4.5	0.45	5.2	500	5000
213 67 40	**SUPERPOINT**	4.5	0.50	6.9	500	5000

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

THE FASCINATION OF DYNAMIC

At some point in the career every shooter aspires to be successful with a shotgun. Rifle shooting requires a calm and steady approach that is mental as well as physical. In contrast, a shotgun demands a complex combination of fast physical and mental adjustments. Whilst shooting, decisions must be made in a split-second to ensure that the game is killed cleanly and humanely. When shooting wildfowl or small game this requires practice and, of course, the correct ammunition. Everything from the powder to the pellets must be perfectly balanced to produce a shotshell that delivers the required performance. To get this combination of range, pattern and power it requires research, dedication and proper production techniques. With Rottweil shotshells you get all of this and more. Carefully selected components and excellent quality control ensure that Rottweil shotgun cartridges not only perform, but perform safely: one expects no less from this renowned German manufacturer. If you want to make a day's shooting memorable, give yourself the edge - use Rottweil!

Rottweil®

SHOTSHELLS

Rottweil offers a large assortment of shotshells for both game and range. To cater to the broad range of cartridge applications, Rottweil has introduced various product lines to help you find exactly the load that suits both you and your special purpose.

Premium Line

Outstanding quality and top performance for the most demanding sportsman. As suitable for rough-shooting as for the shooting party.

Product groups:
WAIDMANNSHEIL PAPPE,
WAIDMANNSHEIL HV PLASTIK,
MAGNUM, SEMI-MAGNUM, BI-LOAD,
FE-LOAD, COPPER UNLIMITED

Professional Line

High quality and reliable performance for demanding shooters.

Product groups:
JAGD BRAUN

Basic Line

Game cartridges with standard components for volume users. Ideal for high-volume shoots (e.g. wood pigeon).

Product groups:
SPECIAL 36,
SPECIAL F,
MARK II

Extra Line

Top-quality products with very good features for special applications (e.g. wild boar).

Product groups:
EXPRESS,
EXACT,
BRENNEKE,
EXACT GREEN

Steel Line

High-quality soft iron loads for environmentally conscientious shooters. Ideal for waterfowl in environmentally sensitive areas.

Product groups:
STEEL GAME

Competition Line

Competition cartridges with a good price-to-performance ratio for trap, skeet, sporting and game shooting.

Product groups:
GOLD HV,
SPECIAL, FASAN FF,
SUBSONIC, STEEL

GAME EDITION

Series of shotshells developed for game-specific applications.

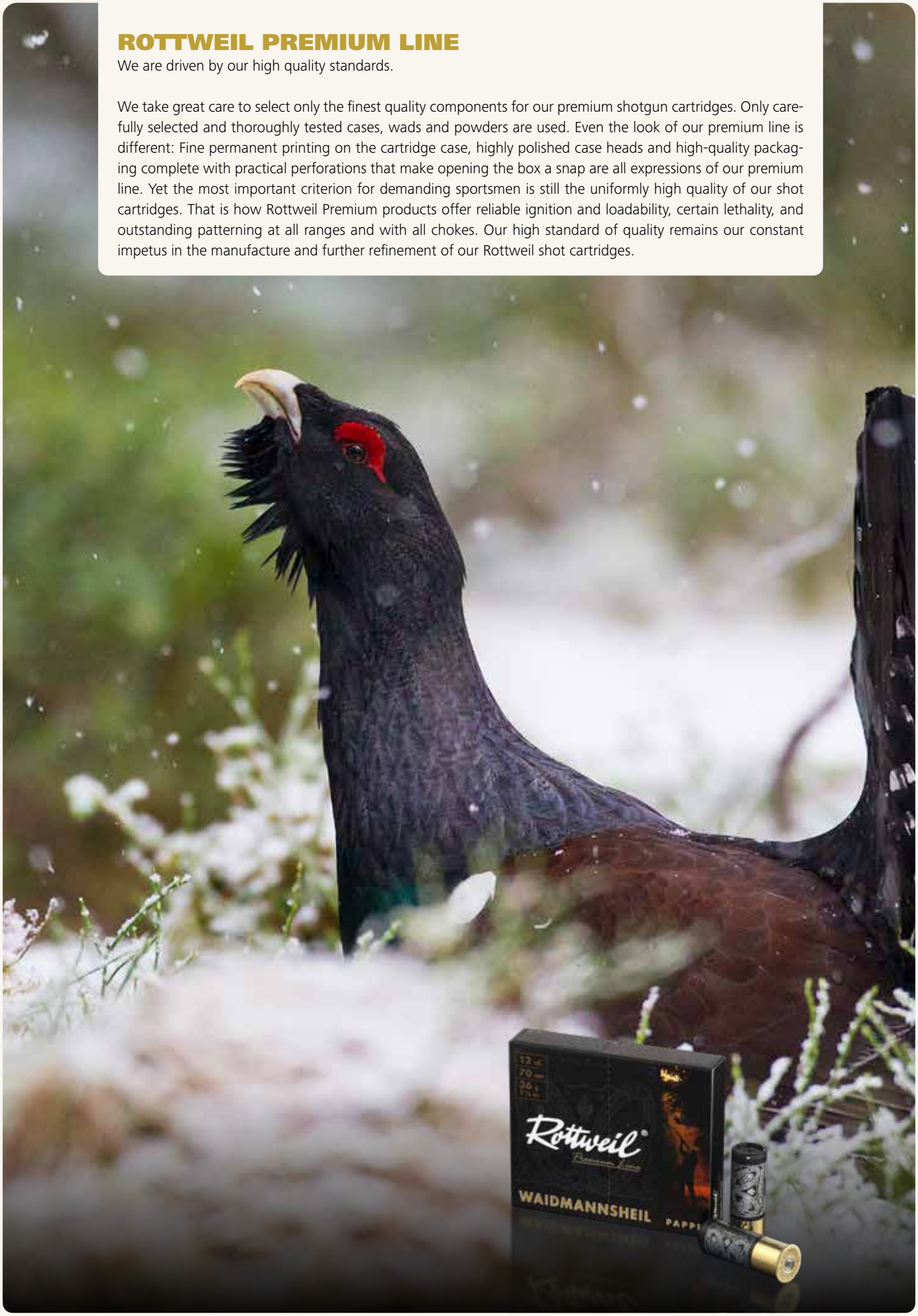
Product groups:
DUCK, PIGEON, HARE, CROW,
DEER, PHEASANT, GOOSE, PARTRIDGE

Rottweil products with comparable quality and similar range of use are grouped within these lines without changing their long-established product names (Waidmannsheil, Tiger. etc.). The above overview shows what quality features and recommendations for use are to be found in each particular line.
The line grouping is aided by a practical colour system that distinguishes the particular lines from each other and optically sorts products within a line. This consistent colour scheme is to be found not only in this catalogue but also on the product packaging.

ROTTWEIL PREMIUM LINE

We are driven by our high quality standards.

We take great care to select only the finest quality components for our premium shotgun cartridges. Only carefully selected and thoroughly tested cases, wads and powders are used. Even the look of our premium line is different: Fine permanent printing on the cartridge case, highly polished case heads and high-quality packaging complete with practical perforations that make opening the box a snap are all expressions of our premium line. Yet the most important criterion for demanding sportsmen is still the uniformly high quality of our shot cartridges. That is how Rottweil Premium products offer reliable ignition and loadability, certain lethality, and outstanding patterning at all ranges and with all chokes. Our high standard of quality remains our constant impetus in the manufacture and further refinement of our Rottweil shot cartridges.



Premium Line

Outstanding quality for the most demanding shooter

The Rottweil Premium Line offers exclusive cartridges to the most demanding shooters. Our traditional products with outstanding quality and highest performance have been favourites for generations. Shooters the world over that want to kill their game cleanly and ethically trust in Rottweil premium products. Whether you go alone or in a group, your success is assured with Rottweil Premium!

ROTTWEIL MAGNUM

Especially powerful for denser patterning

Due to its highest possible shot load this cartridge is ideal for special applications in game shooting. Only for shotguns with a 76 mm (3 in.) chamber length and magnum barrel proof!

- cal. 12: black polyethylene case with 20 mm brass head
- cal. 20: yellow polyethylene case with 16 mm brass head
- plastic wad
- lead shot
- extra-heavy shot charge

Gauge	Shot sizes	Weight	Pack unit	V 2.5 m
12/76 Magnum	2.7 - 4.0 mm	52 g	10/box	380 m/sec
20/76 Magnum	2.7 - 3.7 mm	33 g	10/box	370 m/sec

ROTTWEIL SEMI MAGNUM

Dense patterning for normal shotguns

This semi-magnum load has been developed to offer the hunter a heavier shot load for shotguns with standard proof marks and a chamber length of 70 mm (2¾ in.).

- black polyethylene case
- 20 mm brass head
- plastic wad
- lead shot
- heavy shot charge

Gauge	Shot sizes	Weight	Pack unit	V 2.5 m
12/70 Magnum	2.7 - 4.0 mm	40 g	10 box	375 m/sec

ROTTWEIL WAIDMANNSHEIL PAPPE

Masterful perfection for the most demanding shooter

waterproof varnish seal

This extremely high quality shotshell has been continuously improved over decades of use. The newest improvement of this favourite has been to impregnate the paper case with an ecologically friendly water-based varnish. The environmentally conscious hunter will particularly appreciate the combination of cardboard and felt fibre wadding.

- varnished black paper case
- nitro card wad
- felt fibre cushion wad
- 20 mm brass head
- lead shot

Gauge	Shot sizes	Weight	Pack unit	V 2.5 m
12/70	2.7 - 3.5 mm	36 g	10/box	380 m/sec

ROTTWEIL WAIDMANNSHEIL HV PLASTIK

Masterfully perfected for fast hits

The extremely high quality plastic version of the legendary Waidmannsheil Pappe is also a real success story in the Rottweil line. The especially high velocity combined with a heavy shot load in a plastic wad offers excellent performance with good patterning.

- cal. 12: black polyethylene case with 20 mm brass head
- cal. 16: black polyethylene case with 16 mm brass head
- cal. 20: yellow polyethylene case with 16 mm brass head
- plastic wad
- lead shot
- high velocity

Gauge	Shot sizes	Weight	Pack unit	V 2.5 m
12/70	2.5 - 4.2 mm	36 g	10/box	395 m/sec
16/70	2.7 - 4.0 mm	31 g	10/box	385 m/sec
20/70	2.5 - 3.5 mm	28 g	10/box	385 m/sec

NEW

ROTTWEIL BI-LOAD
ROTTWEIL FE-LOAD

Lead-free shotgun loads should have a similar energy delivery and maximum effective range to that of lead loads but, on the other hand, must remain affordable to shoot. As a solution for that, Rottweil presents a series of lead-free cartridges that compare favorably – not only in performance but also in price – to premium-priced lead shot loads.
Both the Rottweil BI-LOAD and FE-LOAD series have hit the market as absolutely unique products. BI-LOAD is the first and only shotshell that is loaded with layers of steel and bismuth shot. FE-LOAD is, for each caliber, the heaviest steel shot load available on the market.

Premium Line

BI-LOAD, FE-LOAD - high quality, lead-free shot loads with two different layers of shot

BI LOAD
STEEL MEETS BISMUTH

A world first: Bismuth + Steel

High quality, lead-free shot loads made from two different materials

- Unique combo: BI-LOAD is loaded with a combination of tinned steel shot and bismuth shot
- Two layers of shot: in front, heavy, red 3.8 mm bismuth shot for more energy; in the rear, lighter 3.5 mm steel shot for perfect patterning and high hit ratios
- The best of both worlds: bismuth is lead-free and heavier than soft iron, but as soft as lead
- Environmentally friendly: 100% lead-free shot
- The bigger the better: ideally suited to all species of waterfowl
- Visible technology: case, wad and closing disc are all transparent
- High quality: reliable ignition, abrasion-resistant case print, high brass head, sturdy packaging
- Visual confirmation: having red shot in front increases the visibility of the load
- High-performance load (HP): max. 1050 bar

FE LOAD
TWO LAYERS OF STEEL

Unique: 10% heavier shot load

High quality, lead-free shot loads made from two layers of steel shot

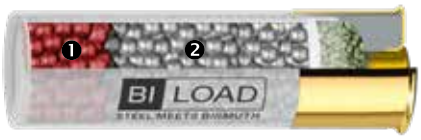
- Over 10% more shot: FE-LOAD is at least 10% heavier than ordinary soft iron loads and thereby the heaviest steel shot load for its caliber
- Two layers of shot: in front, heavy, red 3.8 mm shot for more energy; in the rear, lighter 3.3 mm steel shot for perfect patterning and high hit ratios
- Environmentally friendly: 100% lead-free shot
- The bigger the better: ideally suited to all species of waterfowl
- Visible technology: case, wad and closing disc are all transparent
- High quality: reliable ignition, abrasion-resistant case print, high brass head, sturdy packaging
- Visual confirmation: having red shot in front increases the visibility of the load
- High-performance load (HP): max. 1050 bar

BI-LOAD 12/76 HP MAGNUM

❶ 8 g of 3.8 mm bismuth shot
+
❷ 32 g of 3.5 mm soft iron shot

40 g of pure lead-free power

bleifrei GREEN™ lead-free



Gauge	Shot size	Weight	Pack unit.	V 2.5 m
12/76 HP Magnum	BI 3.8 mm + FE 3.5mm	40 g	10/box	375 m/sec

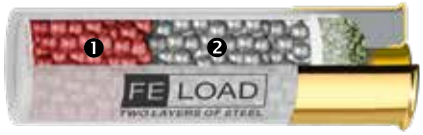
Enhanced steel shot proof

FE-LOAD 12/76 HP MAGNUM

❶ 16 g of 3.8 mm soft iron shot
+
❷ 24 g of 3.3 mm soft iron shot

40 g of pure lead-free power

bleifrei GREEN™ lead-free



Gauge	Shot size	Weight	Pack unit.	V 2.5 m
12/76 HP Magnum	FE 3.8mm + FE 3.3mm	40 g	10/box	375 m/sec

Enhanced steel shot proof

BI-LOAD 12/70 HP

❶ 8g of 3.8 mm bismuth shot
+
❷ 28g of 3.5 mm soft iron shot

36 g of pure lead-free power

bleifrei GREEN™ lead-free

Gauge	Shot size	Weight	Pack unit.	V 2.5 m
12/70 HP	BI 3.8mm + FE 3.5mm	36 g	10/box	375 m/sec

Enhanced steel shot proof

FE-LOAD 12/70 HP

❶ 14 g of 3.8 mm soft iron shot
+
❷ 22 g of 3.3 mm soft iron shot

36 g of pure lead-free power

bleifrei GREEN™ lead-free

Gauge	Shot size	Weight	Pack unit.	V 2.5 m
12/70 HP	FE 3.8mm + FE 3.3mm	36 g	10/box	375 m/sec

Enhanced steel shot proof

COPPER UNLIMITED

Due to its lighter weight, ordinary steel shot always forces compromises in regard to its effective range, its impact energy and where it may be used. The new Rottweil Copper Unlimited is a high-performance lead-free cartridge that rivals lead shot cartridges. Shooting nearly all types of feathered and ground game is now possible without reservation. How? Rottweil Copper Unlimited cartridges contain shot made from pure copper. Copper is both heavier and softer than soft iron shot. The advantages to the sportsman include increased effective ranges of up to 40 metres and up to 15% more energy delivered to the target. Since it is possible to put more pellets into the cartridge than the same load weight of steel shot would allow, the same energy is achieved by using smaller shot. This improves one's chances of success. In addition, the softer copper shot makes forest and field shooting possible again since the danger from ricochets is greatly reduced. Rottweil Copper Unlimited is a high-performance cartridge with a maximum muzzle velocity (V2.5m) of up to 397 m/sec. This means maximum energy delivered to the game, long effective ranges and less lead required for moving targets.

Premium Line

COPPER UNLIMITED – for unrestricted lead-free shooting

1. MORE HITS

Due to the greater density of copper, the same shot charge weight can be made up of shot one size smaller than that of its steel counterpart. This increases the number of pellets in the load and thereby the pattern density (see illustration below).

2. BETTER MATERIAL PROPERTIES

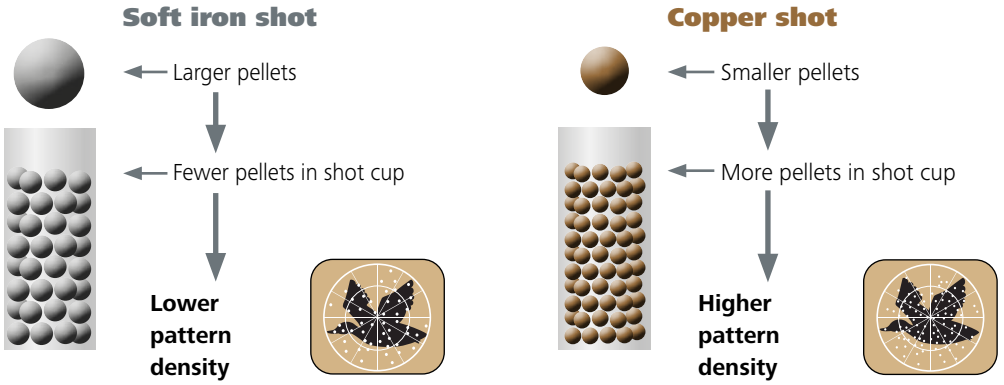
Shot made of pure copper has a density of 8.9 g/cm³ and is about 15% heavier than soft iron in addition to being much softer and more malleable.

3. MORE FREEDOM

The new Rottweil Copper Unlimited allows all species of small game to be taken with lead-free ammunition and without restriction - whether over wetlands, in the woods, or in open fields.

4. SAFER

Of all lead-free Rottweil shot cartridges, Rottweil Copper Unlimited present the lowest danger of ricochets.



ROTTWEIL COPPER UNLIMITED 12/76 MAGNUM

Lead-free magnum cartridge for top performance

High-performance magnum cartridge with copper shot for guns proved for steel shot. Longer effective range and better killing power than magnum steel shot cartridges. Not just a great choice for shooting over wetlands, but also suitable for forest and field shooting.

- Black polyethylene case
- 20 mm case head
- Special shot cup
- Pure copper shot
- Heaviest possible shot load
- maximum 1050 bar

Gauge		Shot size	Weight	Pack unit	$V_{2.5\,m}$
12/76	**Magnum**	2.75 – 3.25mm	40 g	10/box	375 m/sec
Enhanced steel shot proof					

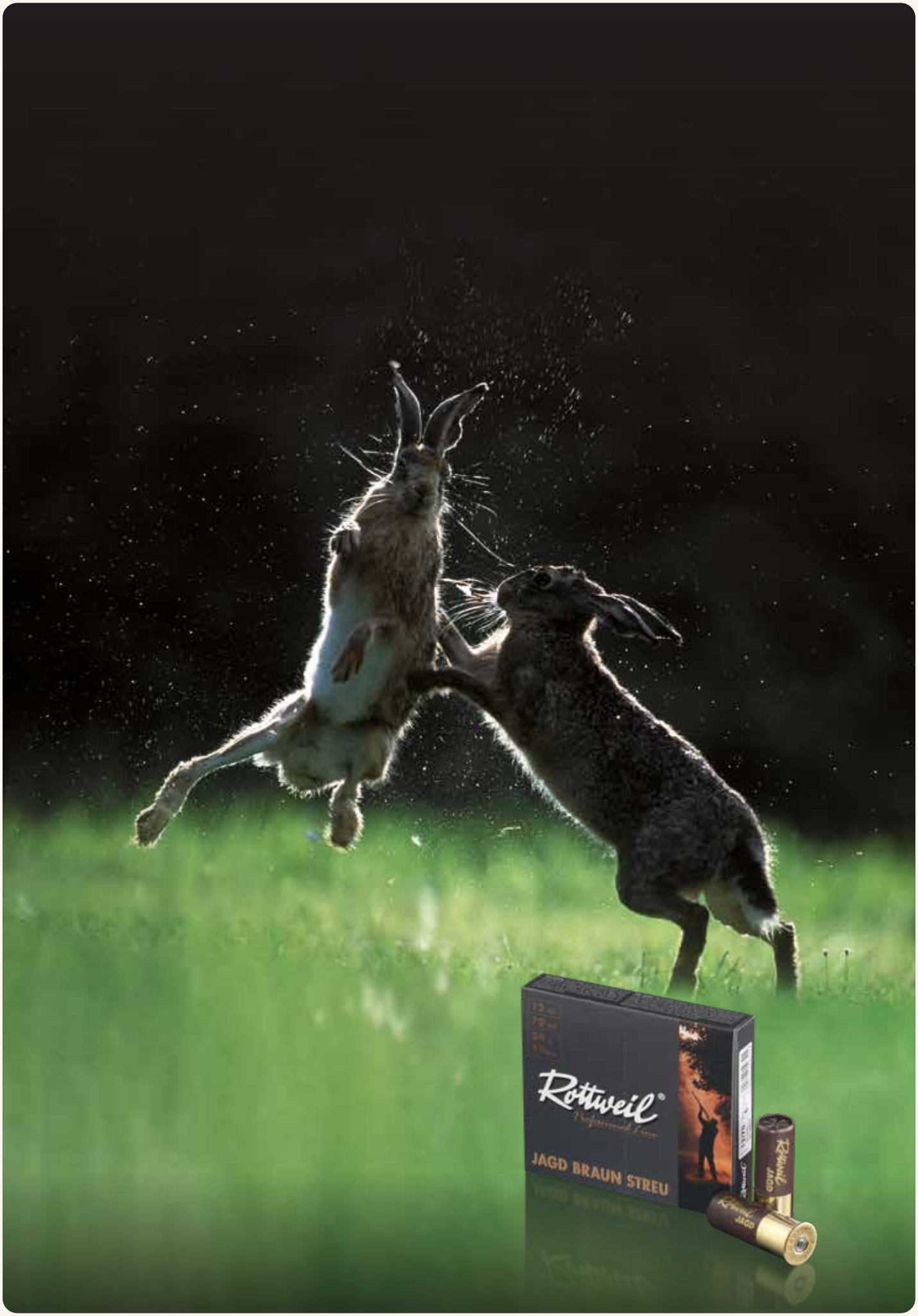
ROTTWEIL COPPER UNLIMITED 12/70

Masterfully perfected for quick hits

High-performance cartridge with copper shot for guns proved for steel shot. Longer effective range and better killing power compared to steel shot cartridges. Not just a great choice for shooting over wetlands, but also suitable for forest and field shooting.

- Black polyethylene case
- 20 mm case head
- Special shot cup
- Pure copper shot
- Especially high velocity ($V_{2.5}$ = 397 m/sec)
- maximum 1050 bar

Gauge	Shot size	Weight	Pack unit	$V_{2.5\,m}$
12/70	2.75 – 3.25mm	34 g	10/box	397 m/sec
Enhanced steel shot proof				


Rottweil
JAGD BRAUN STREU

Professional Line

High quality for the passionate shooter

The Rottweil Professional Line offers high quality and top performance for the serious shooter. Produced with selected components for the discerning shooter, Professional Line shotshells are particularly suitable for waterfowling and woodland pursuits.

ROTTWEIL JAGD BRAUN PLASTIK

Classic performance for versatile shooters

The Jagd Braun with plastic case and fibre wad is a classic cartridge for demanding shooters who need a heavy charge of larger shot. With specially selected components and a 36 g shot load, this game cartridge stands out thanks to its good patterns and favourable price-to-performance ratio.

- brown plastic case
- 20 mm brass head
- H-disc with felt fibre wad
- lead shot

Gauge	Shot sizes	Weight	Pack unit.	$V_{2.5\,m}$
12/70	2.7 - 3.5 mm	36 g	10/box	375 m/sec
16/70	3.0 mm	31 g	10/box	375 m/sec

ROTTWEIL JAGD BRAUN STREU PLASTIK

Classic performance for shorter ranges

This spreader variant of the Jagd Braun is ideally suited to close-range pursuits, such as when shooting in wooded areas or at incoming ducks. The spreader insert produces a wide shot pattern up to a range of about 25 m that increases hit probability and prevents loss of game.

- brown plastic case
- 20 mm brass head
- H-disc with felt fibre wad
- lead shot
- plastic spreader insert

⊗ = spreader insert

Gauge	Shot sizes	Weight	Pack unit.	$V_{2.5\,m}$
12/70	2.7 + 3.2 mm ⊗	34 g	10/box	375 m/sec
16/70	2.7 mm ⊗	30 g	10/box	375 m/sec

ROTTWEIL THERMOS FLASK

The perfect gift for the avid hunter! This originale thermos flask comes in the design of the legendary Rottweil Waidmannsheil shotgun cartridge. Thanks to its high-quality stainless steel the flask offers excellent insulating properties. The top can be unscrewed and used as a drinking cup.

- Originale thermos flask in the form of the legendary Waidmannsheil shotgun cartridge
- Excellent insulating properties thanks to high-quality stainless steel
- With integrated drinking cup and quick-stop cap for easy pouring
- Capacity: 750 ml
- Material: stainless steel

Item No.	Type
231 92 32	**Rottweil thermos flask**

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.


SPECIAL 36
12
70
36
Rottweil
SPECIAL 36

Basic Line

Hunting shotshells with standard components for high-volume shooters

The Rottweil Basic Line offers great value for regular shooters needing large numbers of cartridges. By using less expensive components yet still offering excellent performance, they are extremely suitable for high-volume shooting, e.g. wood pigeon.

ROTTWEIL SPECIAL 36

Outstanding value for shooters on a budget

This special game cartridge with low base head and heavy shot load is an economical alternative yet with few compromises for the price-conscious shooter.
The favourable price is achieved through the use of lower-cost components in the manufacturing process.

- dark green polyethylene case
- 16 mm brass head
- plastic wad
- lead shot

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/70	2.5 – 4.0 mm	36 g	25/box	380 m/sec

ROTTWEIL MARK II 30 HV

Fast loads for fast birds

Smaller game require smaller shot. Reducing the load to 30 g increases shooter comfort to allow many more shots in the course of the day. The high velocity (HV) helps in hitting wide-flushing and fast-flying birds such as red partridge.

- bright green plastic case
- 12 mm brass head
- shot cup
- lead shot
- high velocity

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/67.5	2.7 + 3.2 mm	30 g	25/box	390 m/sec

ROTTWEIL SPECIAL 12 F, 16 F, 20 F

Fine shot for higher hit rates

This game shotshell series offers a wide selection of shot sizes in all three gauges with emphasis on smaller pellet sizes. The fibre wad combined with the H-disc gas seal produces an especially wide and even pattern for more certain hits on smaller bird species.

- green polyethylene case in 12 and 16 ga.
  yellow polyethylene case in 20 ga.
- plastic base wad
- 12 ga. with 12 mm brass head
  16 ga. with 8 mm brass head
  20 ga. with 12 mm brass head
- H-disc with felt fibre wad
- lead shot

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/67.5	2.2 – 3.2 mm	32 g	25/box	380 m/sec
16/67.5	2.5 – 3.0 mm	27 g	25/box	375 m/sec
20/67.5	2.5 – 3.2 mm	26 g	25/box	375 m/sec

ROTTWEIL SPECIAL 12 F STREU

Economy load for short-range shooting

The Rottweil Special 12 F Streu is especially suitable for ground game and incoming ducks. Thanks to its spreader insert and fibre wad, this cartridge delivers satisfyingly wide patterns. The use of economical components keeps this cartridge within the reach of every shooter.

- green plastic case
- 12 mm brass head
- H-disc with felt fibre wad
- spreader insert

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/67.5	2.7 mm ⊗	32 g	25/box	380 m/sec

⊗ = spreader insert

ROTTWEIL GAME EDITION

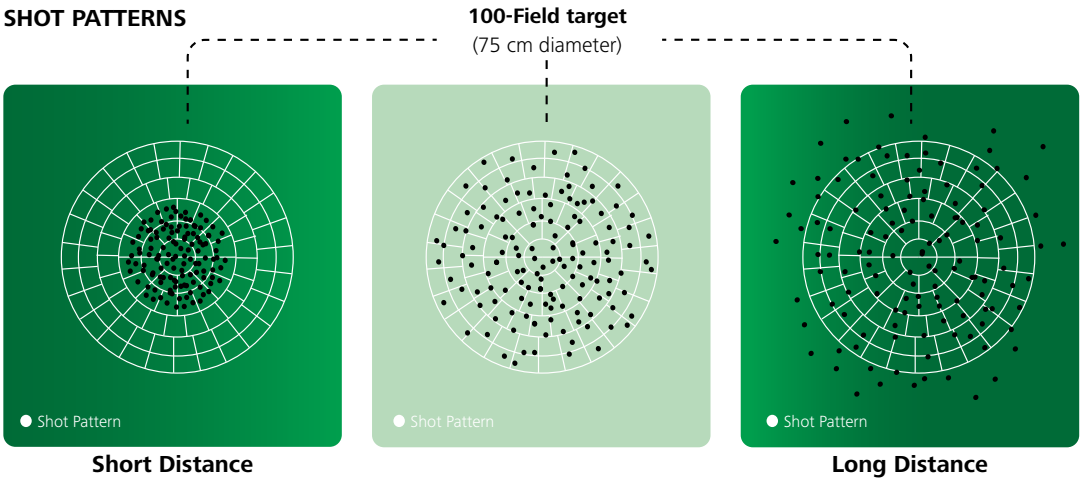
The components and performances of each cartridge are tailored to produce an optimal distribution of impact energy – and thereby a killing effect – against specific game species. The fine-tuning of each loading is achieved through rigorous quality testing combined with a new measurement and analysis protocol. Light game species need less pattern energy – the combination of energy delivery and pattern coverage – while heavier species need more. In addition to its weight, the surface area of the game to be hunted is another decisive variable. Within the usual range of shooting distances for certain species of small game, GAME EDITION cartridges deliver far more pattern energy than is necessary for a sportsmanlike kill. This gives the small game shooter the confidence of knowing that he has a reserve of energy if he needs it: if the pattern isn't quite centred on the animal, if ground game is in full run or the birds are flying fast, or if the shooting distance lies at the cartridge's maximum effective range. This is why GAME EDITION cartridges guarantee the best possible success in small game hunting.

GAME EDITION

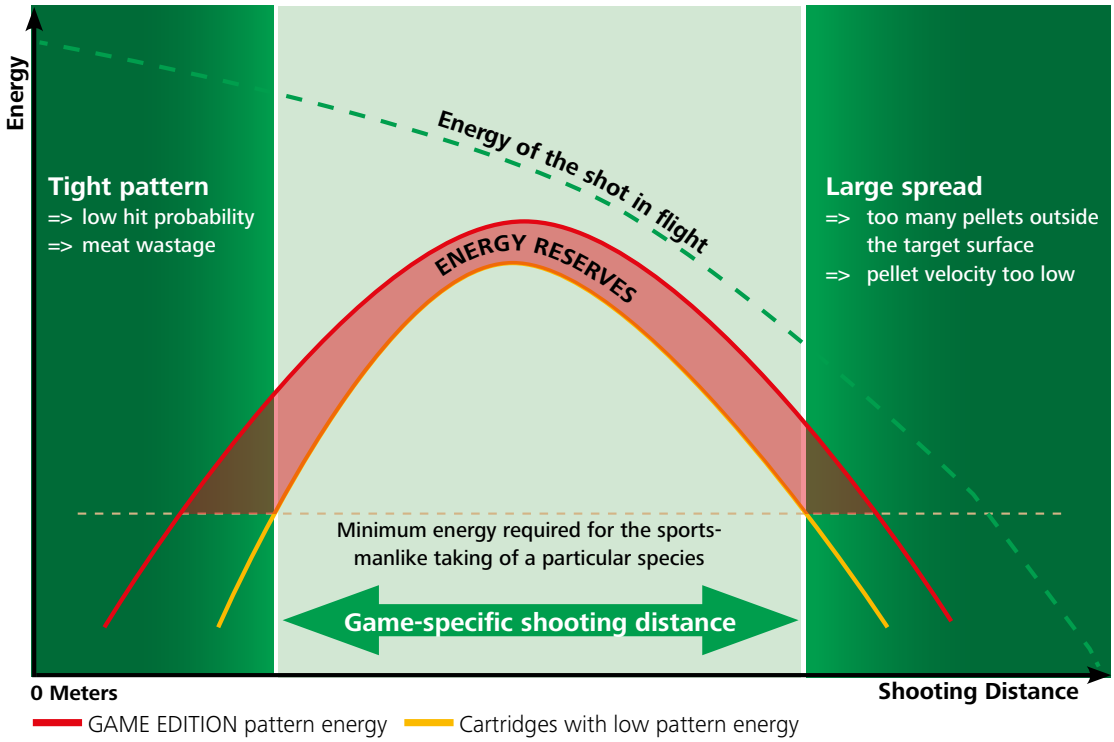
- developed for game-specific applications

Rottweil GAME EDITION shotshells have power levels and energy distributions that have been optimised for hunting particular species of small game. These cartridges are loaded with common shooting distances and choke constrictions in mind as well as the salient characteristics of the game to be hunted, such as its weight and size.

ENERGY RESERVES WHEN HUNTING SMALL GAME WITH GAME EDITION CARTRIDGES



ENERGY GRAPH (based upon the above shot patterns)



The energy graph depicted above demonstrates the large energy reserves that GAME EDITION cartridges command when hunting specific game species. The available pattern energy is far higher at every game-specific shooting distance than the minimum energy required to kill that species in a sportsmanlike manner. In general, GAME EDITION cartridges have higher game-specific pattern energy because their shot patterns are tailored to the species in question.

GAME EDITION DUCK

- cal. 12: dark green plastic case with 16 mm high brass head
- cal. 20: yellow plastic case with 8 mm high brass head
- steel shot
- environmentally friendly/suitable for waterfowl
- optimised for a shooting distance of 12 - 25 m
- practical 100-pack with carry handle

Safe to use in barrels without enhanced steel shot proof

Gauge	Shot sizes	Weight	Pack unit.	V 2.5 m
12/70	3.25 mm	32 g	100/box	375 m/sec
20/70	3.00 mm	24 g	100/box	385 m/sec

GAME EDITION PIGEON

- cal. 12: dark green plastic case with 16 mm high brass head
- cal. 20: yellow plastic case with 8 mm high brass head
- lead shot
- optimised for a shooting distance of 15 - 35 m
- practical 100-pack with carry handle

Gauge	Shot sizes	Weight	Pack unit.	V 2.5 m
12/70	2.8 mm	32 g	100/box	400 m/sec
20/70	2.8 mm	30 g	100/box	380 m/sec

GAME EDITION HARE

- dark green plastic case
- 12 mm high brass head
- lead shot
- optimised for a shooting distance of 15 - 35 m

Gauge	Shot sizes	Weight	Pack unit.	V 2.5 m
12/70	3.5 mm	36 g	25/box	400 m/sec

GAME EDITION CROW

- dark green plastic case
- 12 mm high brass head
- lead shot
- optimised for a shooting distance of 20 - 40 m

Gauge	Shot sizes	Weight	Pack unit.	V 2.5 m
12/70	2.9 mm	34 g	25/box	400 m/sec

GAME EDITION DEER

- dark green plastic case
- 16 mm high brass head
- lead shot
- optimised for a shooting distance of 15 - 45 m
- use on deer only allowed in specific countries/areas

Gauge	Shot sizes	Weight	Pack unit.	V 2.5 m
12/70	3.75 mm	38 g	10/box	390 m/sec

GAME EDITION PHEASANT

- cal. 12: dark green plastic case with 16 mm high brass head
- cal. 20: yellow plastic case with 8 mm high brass head
- lead shot
- felt fibre wad
- low recoil
- optimised for a shooting distance of 8 - 25 m

Gauge	Shot sizes	Weight	Pack unit.	V 2.5 m
12/67.5	2.7 mm	28 g	25/box	390 m/sec
20/70	2.7 mm	28 g	25/box	375 m/sec

GAME EDITION GOOSE

- dark green plastic case
- 16 mm high brass head
- soft iron shot
- environmentally friendly/suitable for waterfowl
- especially high velocity (V 2.5 m = 429 m/sec)
- optimised for a shooting distance of 15 - 35 m

bleifrei GREEEN™ lead-free

Only for shotguns carrying steel proof marks

Gauge	Shot sizes	Weight	Pack unit.	V 2.5 m
12/76	3.25 mm	35 g	10/box	429 m/sec

GAME EDITION PARTRIDGE

- dark green plastic case
- 12 mm high brass head
- lead shot
- optimised for a shooting distance of 10 - 35 m

Gauge	Shot sizes	Weight	Pack unit.	V 2.5 m
12/70	2.5 mm	32 g	25/box	400 m/sec

For more shotshells please see our listings in the Norma and GECO sections of this catalogue.

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

ROTTWEIL EXTRA LINE

Top products for special applications

At the top of the Extra Line are Rottweil slug cartridges for special applications. The slug cartridges for wild boar shooting are built to impress with their quality and accuracy. The Extra Line buckshot loads make the taking of cloven-hoofed game possible in countries where the use of large shot is permitted. Extra Line - an extra in safety, an extra in performance.

Extra Line

Buckshot/Slug loads

ROTTWEIL EXPRESS

Developed for special hunting situations

These cartridges are designed for specific applications and are used in countries where the use of extra-large shot at cloven-hoofed game is allowed. Use Rottweil Express when only buckshot will do, especially for short ranges and in thick brush.

- transparent polyethylene case
- 20 mm brass head
- H-disc with felt fibre wad
- lead buckshot

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/67.5	4.5 – 8.6 mm	28.5-38 g	10/box	390 m/sec – 415 m/sec
16/67.5	7.4 mm	22 g	10/box	415 m/sec

ROTTWEIL BRENNEKE CLASSIC

Good for all hunting situations

Classic hunting slug cartridge with felt wad that can be universally used up to 50 m with all ordinary shotguns.

- cal. 12: transparent polyethylene case with 20 mm brass head
- cal. 20: yellow transparent polyethylene case with 16 mm brass head
- H-disc with felt fibre wad
- Original Brenneke Classic shotgun slug with felt wad

Gauge	Weight		Pack unit	$V_{2.5\,m}$
12/70	31.5 g	490 gr	10/box	415 m/sec
12/67.5	31.5 g	490 gr	10/box	415 m/sec
20/67.5	24 g	370 gr	10/box	410 m/sec

ROTTWEIL BRENNEKE MAGNUM

Heavy weight for maximum impact

The Rottweil Brenneke 'Silver' delivers very high impact energy for big game. Its accuracy in smoothbore shotgun barrels is not affected by the degree of choke constriction.
This magnum cartridge must only be used in gun barrels showing magnum proof marks and with 76 mm (3 in.) chambers!

- transparent polyethylene case
- 20 mm brass head
- original Brenneke Silver shotgun slug with plastic tail section

Gauge	Weight		Pack unit	$V_{2.5\,m}$
12/76 Magnum	39 g	600 gr	5/box	420 m/sec

ROTTWEIL BRENNEKE CLASSIC MAGNUM

Fast slug for first-class success

Thanks to its magnum-pressure loading, this cartridge achieves a higher velocity and, as a result of this performance increase, it delivers more energy to the target. Its accuracy in smoothbore shotgun barrels is not affected by the degree of choke constriction.

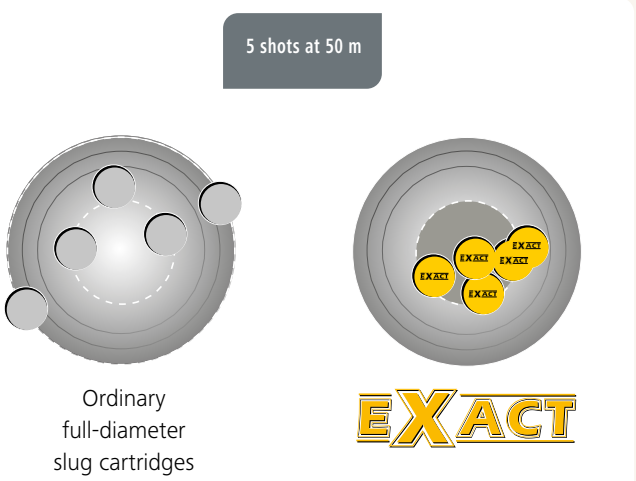
- transparent polyethylene case
- 20 mm brass head
- H-disc with felt fibre wad
- original Brenneke Classic shotgun slug with felt wad
- only for shotguns proved for magnum loads

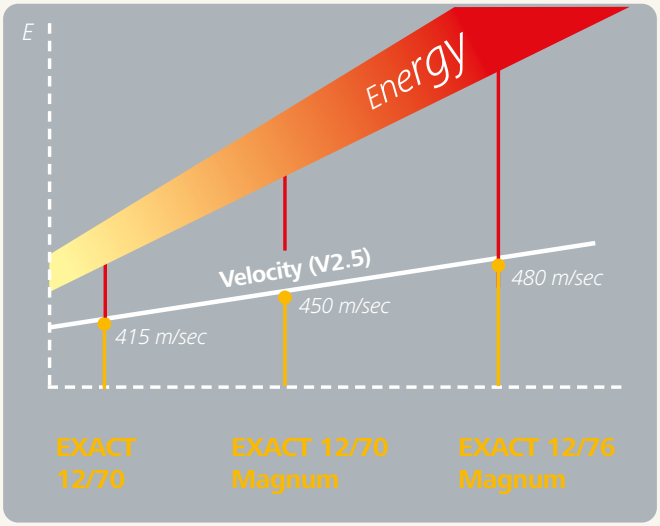
Gauge	Weight		Pack unit	$V_{2.5\,m}$
12/70 Magnum	31.5 g	490 gr	5/box	435 m/sec

EXACT

For convincing accuracy

When shooting wild boar with a shotgun, the highest possible precision is paramount. To comply with sportsmanlike ethics, wild boar should be shot at ranges no greater than 50 metres in order to minimise the need for tracking wounded animals. The Rottweil EXACT slug cartridge is precision-built and is the most accurate Rottweil slug cartridge ever. In addition, it offers a lower-priced alternative to our Classic slug with felt wad.





ROTTWEIL EXACT MAGNUM

More performance, more energy

The magnum variants of the Rottweil EXACT deliver more energy and even greater stopping power on game such as wild boar with more velocity, less lead and fewer misses - particularly on game drives. Only for use in barrels bearing magnum proof marks!

- cal. 12: transparent polyethylene case with 20 mm brass head, white plastic tale section
- cal. 20: yellow transparent polyethylene case with 16 mm brass head, yellow plastic tale section

Gauge	Weight	Pack unit	$V_{2.5\,m}$
12/76 Magnum	32 g	5/box	480 m/sec
12/70 Magnum	32 g	5/box	450 m/sec
20/76 Magnum	26 g	5/box	455 m/sec

ROTTWEIL EXACT

Outstanding precision

The Rottweil EXACT slug cartridge was developed in cooperation with the renowned slug manufacturer Gualandi. EXACT in name - precise in performance.

- cal. 12: transparent polyethylene case with 20 mm brass head, white plastic tale section
- cal. 16: transparent polyethylene case with 16 mm brass head, white plastic tale section
- cal. 20: yellow transparent polyethylene case with 16 mm brass head, yellow plastic tale section
- featuring Gualandi technology

Gauge	Weight	Pack unit	$V_{2.5\,m}$
12/70	32 g	10/box	415 m/sec
12/67.5	32 g	10/box	415 m/sec
16/70	29 g	10/box	420 m/sec
16/67.5	29 g	10/box	420 m/sec
20/70	26 g	10/box	415 m/sec

NEW

EXACT GREEN

Up to 30% more energy*; 100% lead free

In some regions of Europe, it is now legally required that only lead-free slug loads be used for hunting. Nonetheless, the new ROTTWEIL cartridges with the lead-free EXACT GREEN slug are more than just an ecological alternative to lead slugs. More importantly, ROTTWEIL EXACT GREEN cartridges deliver more energy into the target than ordinary lead slug loads. Thanks to the lower slug weight, they can be loaded to a higher velocity without being in danger of exceeding the maximum pressure limit for that caliber. Due to the extreme increase in velocity, energy figures are up to 30% higher than comparable loads. Lower slug weight at higher velocity also means a flatter trajectory as well as – with moving targets – less lead for the shot. The 25 g slug for the ROTTWEIL EXACT GREEN is made of tin. This material is very soft and has approximately the same deformation characteristics as lead. That is why this tin slug may be used in shotguns that do not have a steel shot proof.
Two variants are offered in 12/70:

- a variant with standard working pressure that can be used in all shotguns
- a variant with a magnum load (max. 1050 bar) for shotguns with magnum proof

ROTTWEIL EXACT GREEN MAGNUM

30% more energy*

The magnum load, which has a muzzle velocity of 565 m/sec, delivers the highest stopping power and requires less lead on running game.

- Transparent polyethylene case with 20 mm high brass head
- Shiny silver, lead-free, tin shotgun slug weighing 25 g
- Green plastic tail section
- For shotguns with magnum proof

bleifrei GREEN™ lead-free

A steel shot proof is not necessary

Gauge	Weight	Pack unit.	V 2.5 m
12/70 Magnum	25 g	5/box	565 m/sec

ROTTWEIL EXACT GREEN

Lead-free, even for sensitive shotguns

This is the standard load, which has a muzzle velocity of 515 m/sec and can be used in ordinary shotguns without a magnum proof. Yet it delivers 20% more energy than comparable lead slug loads*.

- Transparent polyethylene case with 20 mm high brass head
- Shiny silver, lead-free, tin shotgun slug weighing 25 g
- Green plastic tail section
- May be used in shotguns with a normal proof

bleifrei GREEN™ lead-free

A steel shot proof is not necessary

Gauge	Weight	Pack unit.	V 2.5 m
12/70	25 g	5/box	515 m/sec

* compared to lead Rottweil Brenneke loads of the same caliber

ROTTWEIL STEEL LINE

The Rottweil Steel Line offers a wide assortment of soft iron shot to meet every varied need in waterfowl shooting. Hunters with sensitive shotguns choose the STEEL GAME with its lower gas pressures. Hunters who desire more energy from their modern shotguns that are proofed for steel shot reach for STEEL GAME HV. And for shooting fast-flying, small to medium size waterfowl, we recommend the STEEL GAME SPEED 28. As diverse as the products in the Steel Line are, they have one thing in common: high quality at a reasonable price.

bleifrei GREEN™ lead-free

Steel Line

Soft iron shotshells for the environmentally-conscious shooter

ROTTWEIL STEEL GAME HV

The fast soft iron cartridge

Rottweil have expanded their assortment of soft iron cartridges by adding an HV load. This lead-free cartridge with CIP-approved soft iron shot differentiates itself from the Rottweil Steel Game through its higher velocity (HV). It transmits more energy to the target at longer shooting ranges. The Rottweil Steel Game HV with soft iron shot is non-toxic and is therefore suitable for waterfowling. For shooters wanting a fast cartridge capable of long-distance performance, the Rottweil Steel Game HV with soft iron shot is also environmentally friendly. Only for use in barrels with 70 mm (2¾ in.) chambers and bearing magnum proof marks!

- 12 ga. with silver-coloured polyethylene case
  20 ga. with yellow polyethylene case
- 12 ga. with 20 mm brass head
  20 ga. with 16 mm brass head
- special plastic wad
- soft iron shot
- especially fast (HV)
- environmentally friendly/suitable for waterfowl

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/70	3.0 - 3.75 mm	32 g	25/box	400 m/sec
20/70	3.25 mm	24 g	10/box	400 m/sec

For more shotshells please see our listings in the Norma and GECO sections of this catalogue.

ROTTWEIL STEEL GAME

Lead-free for sensitive countryside areas

This cartridge with CIP-compliant iron shot was developed specifically for shooting in environmentally sensitive areas, e.g. near water or in areas where no lead shot is permitted. Safe for use in barrels with 70 mm (2¾ in.) chambers and bearing normal proof marks.

- 12 and 16 ga. with silver-coloured polyethylene case
  20 ga. with yellow polyethylene case
- 12 ga. with 20 mm brass head
  16 and 20 ga. with 16 mm brass head
- special wad
- steel shot
- environmentally friendly/suitable for water fowl

Useable in guns without higher gas pressure (magnum) proof marks.

Gauge		Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/70	Normal proof	2.6 – 3.25 mm	32 g	25/box	375 m/sec
16/67.5	Normal proof	3.0 mm	26 g	10/box	370 m/sec

ROTTWEIL STEEL GAME SPEED 28

Fast, light and environmentally friendly

VMAX 425 m/sec

The Speed 28 is the light and fast soft iron cartridge in the Steel Game series. Due to the high maximum muzzle velocity (V2.5 m) of 425 m/sec. the lead factor for moving targets can be noticeably reduced.
At the same time, the Steel Game Speed 28 can be shot in barrels with standard proof marks and with any choke restriction. Ideally suited to small and medium-sized waterfowl such as teal.

- silver-coloured polyethylene case
- 20 mm brass head
- special plastic wad
- 28 g soft iron shot load
- environmentally friendly/suitable for waterfow

Useable in guns without higher gas pressure (magnum) proof marks.

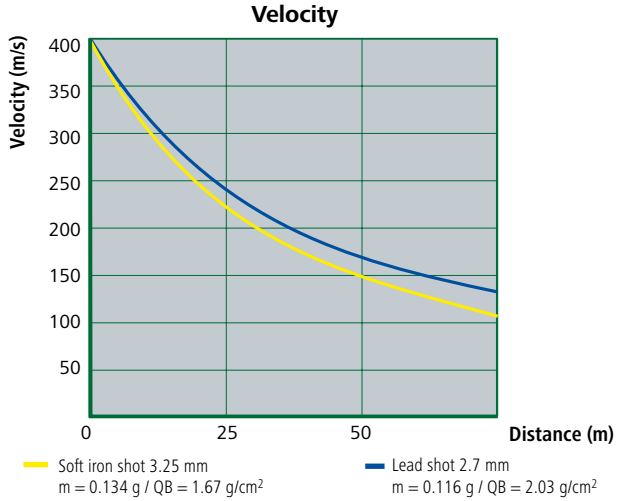
Gauge		Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/70	Normal proof	3.0 + 3.25 mm	28 g	25/box	425 m/sec

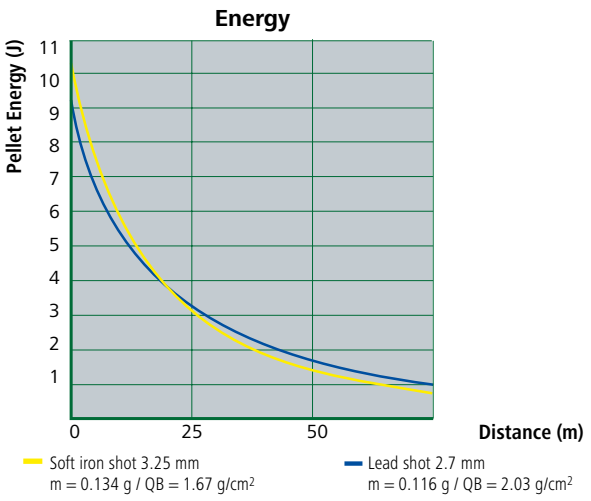
TIPS AND INFORMATION ON SOFT IRON SHOT

Due to their lower density of 7.8 g/cm³ compared to 11.0 g/cm³ with lead, soft iron shot pellets fly slower and not as far. In order to compensate for the loss of velocity and energy of soft iron shot versus lead shot, one must choose a shot size two numbers larger than what one would normally use. In concrete terms, use a soft iron load with 3.25 mm (No. 4) pellets instead of a 2.7 mm (No. 6) lead load.

SHOT CARTRIDGE BALLISTICS

m = Mass / QB = Sectional density



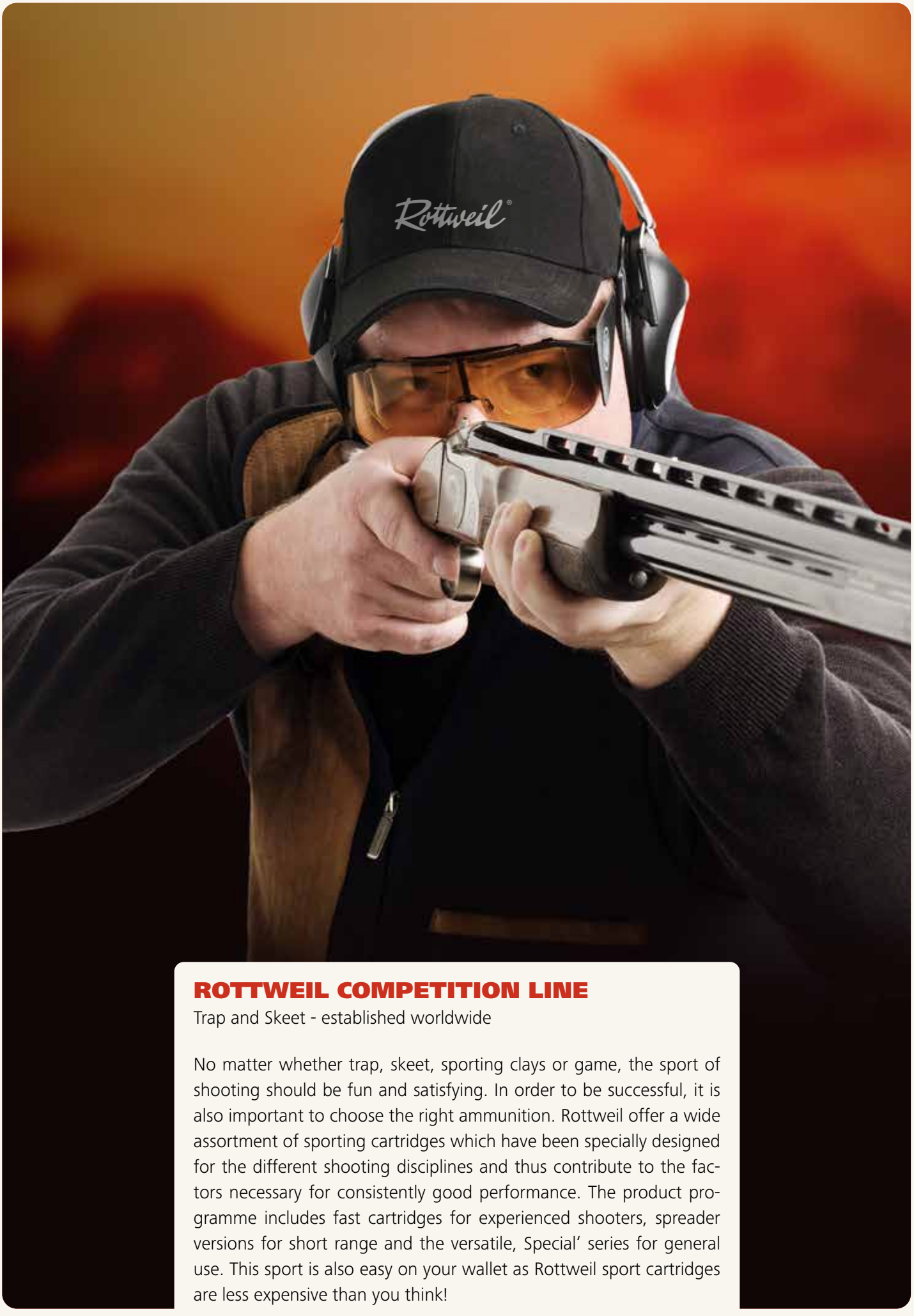


This table shows which shotguns are suitable for which steel cartridge.

GUN			CARTRIDGE: suitable / not suitable
Bore	Proof mark	Choke	Steel shot diameter - Ø (mm): < 2,50 · 2,50 · 2,75 · 3,00 · 3,25 · 3,50 · 3,75 · 4,00 · > 4,00
			Soft iron cartridges with standard pressure up to 740 bar
12 Normal proof	N	Cylinder choke; 1/4 · 1/2 · 3/4 · 1/1	suitable · suitable · not suitable
			High-performance soft iron cartridges with enhanced pressure up to 1050 bar*
12 Enhanced steel shot proof	V	Cylinder choke; 1/4 · 1/2 · 3/4 · 1/1	suitable · suitable · suitable · not suitable
			Soft iron cartridges with standard pressure up to 780 bar
16 Normal proof	N	Cylinder choke; 1/4 · 1/2 · 3/4 · 1/1	suitable · suitable · not suitable · not suitable
			Soft iron cartridges with standard pressure up to 830 bar
20 Normal proof	N	Cylinder choke; 1/4 · 1/2 · 3/4 · 1/1	suitable · suitable · not suitable · not suitable
			High-performance soft iron cartridges with enhanced pressure up to 1050 bar*
20 Enhanced steel shot proof	V	Cylinder choke; 1/4 · 1/2 · 3/4 · 1/1	suitable · suitable · suitable · not suitable

Source: Proof House Ulm, Germany

* High-performance steel shot cartridges are marked '1050 bar' on the case body



ROTTWEIL COMPETITION LINE

Trap and Skeet - established worldwide

No matter whether trap, skeet, sporting clays or game, the sport of shooting should be fun and satisfying. In order to be successful, it is also important to choose the right ammunition. Rottweil offer a wide assortment of sporting cartridges which have been specially designed for the different shooting disciplines and thus contribute to the factors necessary for consistently good performance. The product programme includes fast cartridges for experienced shooters, spreader versions for short range and the versatile, Special' series for general use. This sport is also easy on your wallet as Rottweil sport cartridges are less expensive than you think!

NEW

ROTTWEIL GOLD HV SERIES

Rottweil HV have been the epitome of high-velocity competition shot shells for years thanks to their consistent high quality. With its new GOLD HV series, Rottweil achieves a new level of quality.
In close cooperation with the successful cadre shooters of the German Shooting Federation (DSB), many components have been optimized: Pellets with greater breaking power, powder with less recoil, wads with optimized patterning at various impact ranges, and transparent cartridge cases that make all of this sophisticated technology visible. The GOLD HV doesn't just speak to the professional Olympic shooter – passionate competition and sporting clays shooters will profit from the improved characteristics of this sporting shot shell line as well.

THE ADVANTAGES OF THE NEW GOLD HV SERIES AT A GLANCE:

Developed in cooperation with the German Shooting Federation (DSB)

Transparent shell casing makes the sophisticated technology visible

Gold-graphited pellets have more target-breaking power (5% antimony)

Wads optimized for better patterning

'Soft recoil' powder for minimal recoil

ROTTWEIL GOLD HV SERIES – DEVELOPED IN COOPERATION WITH SUCCESSFUL DSB CADRE SHOOTERS

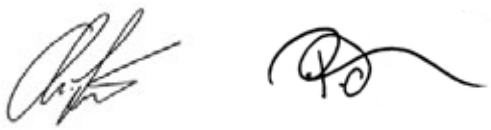
Andreas Löw

Paul Pigorsch

Successful clay target shooting depends on mental fortitude, experience, technique and the right equipment. As long-time cadre shooters, we eagerly shared our experience with Rottweil throughout the development of its new SPORT GOLD HV line. Thanks to our extensive testing, we were able to co-develop this series from the ground up.

Some of the important questions we asked:
- How does the pattern spread at various impact ranges?
- What influence does velocity have on recoil and lead distances?
- Can target-breaking power be increased without negative side effects?

With the innovative components and sensible loadings of the GOLD HV series, Rottweil has delivered exactly what a professional shooter expects from a high-performance competition cartridge. Every ambitious competition shooter can increase his score with this shell, enjoying more success and fun while shooting.



Andreas Löw and Paul Pigorsch – DSB Cadre Shooters

ROTTWEIL TRAP GOLD 24 HV

The newly-developed shot wad of the TRAP GOLD 24 HV shell delivers consistently good patterning with the first as well as the second shot. In addition, the wad's shock-absorbing compression zone noticeably reduces recoil.

- High-quality transparent blue case
- 22 mm high case head
- High target-breaking power thanks to hard, gold-graphited lead pellets (5% antimony)
- Short lead distances are made possible by fast HV powder loads (V2.5 = 415 m/sec [1361 fps])
- Low recoil thanks to 'soft recoil' powder with a consistent burn rate
- Reliable Sinoxid priming

Gauge	Shot sizes	Weight	Pack unit.	$V_{2.5\,m}$
12/70	2.4 mm	24 g	25/box	415 m/sec

ROTTWEIL SKEET GOLD 24 HV

Outstanding patterning at typical skeet distances thanks to a special wad that rapidly separates from the pattern.

- High-quality transparent red case
- 22 mm high case head
- High target-breaking power thanks to hard, gold-graphited lead pellets (5% antimony)
- Short lead distances are made possible by fast HV powder loads (V2.5 = 415 m/sec [1361 fps])
- Low recoil thanks to 'soft recoil' powder with a consistent burn rate
- Reliable Sinoxid priming

Gauge	Shot sizes	Weight	Pack unit.	$V_{2.5\,m}$
12/70	2.0 mm	24 g	25/box	415 m/sec

ROTTWEIL SPORT GOLD 24 HV

The newly-developed shot wad of the SPORT GOLD 24 HV shell delivers consistently good patterning with both the first as well as the second shot. In addition, the wad's shock-absorbing compression zone noticeably reduces recoil.

- High-quality transparent red case
- 22 mm high case head
- High target-breaking power thanks to hard, gold-graphited lead pellets (5% antimony)
- Short lead distances are made possible by fast HV powder loads (V2.5 = 415 m/sec [1361 fps])
- Low recoil thanks to 'soft recoil' powder with a consistent burn rate
- Reliable Sinoxid priming

Gauge	Shot sizes	Weight	Pack unit..	$V_{2.5\,m}$
12/70	2.2 mm	24 g	25/box	415 m/sec

ROTTWEIL SPORT GOLD 28 HV

The specialized wad of the SPORT GOLD 28 HV shell is optimized for the variable shooting distances found in sporting clays shooting.

- High-quality transparent red case
- 22 mm high case head
- High target-breaking power thanks to hard, gold-graphited lead pellets (5% antimony)
- Short lead distances are made possible by fast HV powder loads (V2.5 = 410 m/sec [1345 fps])
- Low recoil thanks to 'soft recoil' powder with a consistent burn rate
- Reliable Sinoxid priming

Gauge	Shot sizes	Weight	Pack unit.	$V_{2.5\,m}$
12/70	2.2 mm	28 g	25/box	410 m/sec

ROTTWEIL SKEET STREU GOLD 24 HV

The SKEET STREU GOLD 24 HV spreader shell delivers an ideal pattern for hunter-style skeet shooting due to its wad's integral spreader insert.

- High-quality transparent green case
- 22 mm high case head
- High target-breaking power thanks to hard, gold-graphited lead pellets (5% antimony)
- Short lead distances are made possible by fast HV powder loads (V2.5 = 410 m/sec [1345 fps])
- Low recoil thanks to 'soft recoil' powder with a consistent burn rate
- Reliable Sinoxid priming

Gauge	Shot sizes	Weight	Pack unit.	$V_{2.5\,m}$
12/70	2.0 mm ⊗	24 g	25/box	410 m/sec

⊗ = speader insert

ROTTWEIL SPECIAL SKEET
ROTTWEIL SPECIAL TRAP

More versatility for competitive shooters

Regardless of whether for competition or practice, the Special series always offers an economic alternative with its large choice of various shot weights with pellet sizes from 2.0 to 2.4 mm for all competition applications.

- Trap cal. 12: light blue polyethylene case with 10 mm brass head
- Trap cal. 20: yellow polyethylene case with 8 mm brass head
- Skeet: red polyethylene case with 12 mm brass head
- plastic wad
- lead shot

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/70	2.0 mm	24 g	25/box	390 m/sec
12/70	2.4 mm	24 + 28 g	25/box	390 m/sec
NEW **20/70**	2.4 mm	24 g	25/box	390 m/sec

ROTTWEIL SUBSONIC TRAP

The best practice cartridge for the game shot

A special cartridge with reduced noise signature for shooting ranges that must operate under strict noise emission requirements.

- bright green polyethylene case
- 12 mm brass head
- shot cup
- lead shot
- reduced noise emission

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/67.5	2.4 mm	28 g	25/box	315 m/sec

ROTTWEIL SPECIAL SKEET STREU

Greater success for skeet shooters

Firing distances in 'hunter-style' skeet shooting are usually short and require a spreader insert to achieve significantly denser patterns than are available with Special Skeet. This spreader cartridge is also particularly suited to specific situations encountered during game shooting.

- green polyethylene case
- 12 mm brass head
- plastic wad
- lead shot
- plastic spreader insert

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/67.5	2.0 mm ⊗	24 g	25/box	390 m/sec

ROTTWEIL FASAN FF

Perfect training cartridge for small-game hunters

This qualitatively very high training shot cartridge with biodegradable cardboard and felt fibre wads is very environmentally friendly. This simplifies disposal at the shooting stand area.

- cal. 12: green polyethylene case with 12 mm brass head
- cal. 16: red polyethylene case with 16 mm brass head
- cal. 20: yellow polyethylene case with 8 mm brass head
- cardboard disc/felt fibre wad
- lead shot
- environmentally friendly

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/67.5	2.4 mm	28 g	25/box	380 m/sec
16/67.5	2.0 + 2.4 mm	28 g	25/box	380 m/sec
20/67.5	2.0 + 2.4 mm	24 g	25/box	380 m/sec

ROTTWEIL STEEL SKEET 24 HV
ROTTWEIL STEEL TRAP 24 HV
ROTTWEIL STEEL TRAP 28 HV

bleifrei GREEN™ lead-free

Lead-free for skeet and trap shooters

Lead free trap cartridge with CIP-approved soft iron shot for environmentally sensitive shooting ranges.

Gauge	Shot sizes	Weight	Pack unit	$V_{2.5\,m}$
12/70 Normal proof	2.2 mm	24 g	25/box	410 m/sec
12/70 Normal proof	2.5 mm	24 + 28 g	25/box	410 m/sec
NEW **20/70** Normal proof	2.5 mm	24 g	25/box	410 m/sec

- cal. 12: bordeaux red polyethylene case with 12 mm brass head
- cal. 20: yellow polyethylene case with 8 mm brass head
- special cup wad
- soft iron shot
- environmentally responsible

Safe to use in barrels without enhanced steel shot proof.

⊗ = speader insert

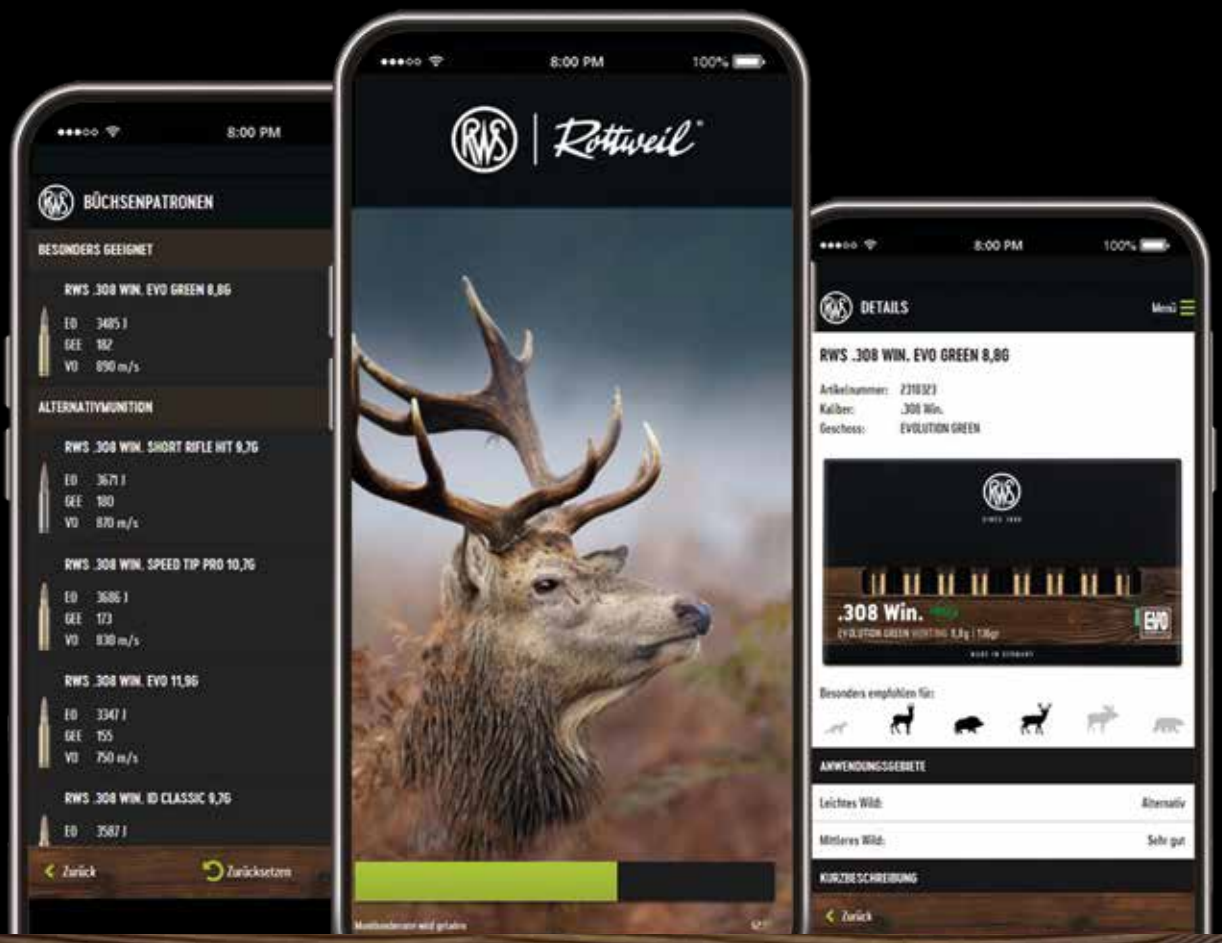
Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SINCE 1886

RWS-AMMO.APP

The ammunition advisor that fits in your pants pocket has many new features!

Since the success of the hunt always depends upon the ammunition used, we stand by you with our RWS Ammunition Advisor for the hunter. Regardless whether drive hunting, hunting with a silencer or using a hunting rifle with a short barrel, you will find just the right ammunition for your application with the RWS Ammunition Advisor.



Always only a click away – link the RWS app directly to your home screen:
rws-ammo.app

Please also visit us on Instagram, Facebook and YouTube

ROTTWEIL PREMIUM LINE LEAD SHOT CARTRIDGES

Item No.		Gauge	Shot size in mm	Shot number	Shot weight in g	Ctg/box
231 67 91	**ROTTWEIL MAGNUM**	12/76	2.7	No. 6	52	10
231 67 92	**ROTTWEIL MAGNUM**	12/76	3.0	No. 5	52	10
231 67 93	**ROTTWEIL MAGNUM**	12/76	3.2	No. 4	52	10
231 67 94	**ROTTWEIL MAGNUM**	12/76	3.5	No. 3	52	10
231 67 95	**ROTTWEIL MAGNUM**	12/76	3.7	No. 2	52	10
231 67 96	**ROTTWEIL MAGNUM**	12/76	4.0	No. 1	52	10
231 67 97	**ROTTWEIL MAGNUM**	20/76	2.7	No. 6	33	10
231 67 98	**ROTTWEIL MAGNUM**	20/76	3.0	No. 5	33	10
231 67 99	**ROTTWEIL MAGNUM**	20/76	3.2	No. 4	33	10
231 68 00	**ROTTWEIL MAGNUM**	20/76	3.7	No. 2	33	10
231 68 01	**ROTTWEIL SEMI MAGNUM**	12/70	2.7	No. 6	40	10
231 68 02	**ROTTWEIL SEMI MAGNUM**	12/70	3.0	No. 5	40	10
231 68 03	**ROTTWEIL SEMI MAGNUM**	12/70	3.2	No. 4	40	10
231 68 04	**ROTTWEIL SEMI MAGNUM**	12/70	3.5	No. 3	40	10
231 68 05	**ROTTWEIL SEMI MAGNUM**	12/70	3.7	No. 2	40	10
231 68 06	**ROTTWEIL SEMI MAGNUM**	12/70	4.0	No. 1	40	10
231 68 09	**ROTTWEIL WAIDMANNSHEIL Pappe**	12/70	2.7	No. 6	36	10
231 68 10	**ROTTWEIL WAIDMANNSHEIL Pappe**	12/70	3.0	No. 5	36	10
231 68 12	**ROTTWEIL WAIDMANNSHEIL Pappe**	12/70	3.5	No. 3	36	10
231 68 18	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	12/70	2.5	No. 7	36	10
231 68 19	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	12/70	2.7	No. 6	36	10
231 68 20	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	12/70	3.0	No. 5	36	10
231 68 21	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	12/70	3.2	No. 4	36	10
231 68 22	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	12/70	3.5	No. 3	36	10
231 68 23	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	12/70	3.7	No. 2	36	10
231 68 24	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	12/70	4.0	No. 1	36	10
231 68 25	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	12/70	4.2	No. 0	36	10
231 68 27	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	16/70	2.7	No. 6	31	10
231 68 29	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	16/70	3.0	No. 5	31	10
231 68 30	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	16/70	3.2	No. 4	31	10
231 68 31	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	16/70	3.5	No. 3	31	10
231 68 32	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	16/70	4.0	No. 1	31	10
231 68 33	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	20/70	2.5	No. 7	28	10
231 68 34	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	20/70	2.7	No. 6	28	10
231 68 35	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	20/70	3.0	No. 5	28	10
231 68 36	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	20/70	3.2	No. 4	28	10
231 68 37	**ROTTWEIL WAIDMANNSHEIL HV Plastik**	20/70	3.5	No. 3	28	10

	Item No.		Gauge	Shot size in mm	Shot number	Shot weight in g	Ctg/box
		ROTTWEIL PREMIUM LINE BISMUTH / SOFT IRON CARTRIDGES					
		ROTTWEIL BI-LOAD - ONLY FOR SHOTGUNS CARRYING STEEL PROOF MARKS					
NEW	241 40 43	**ROTTWEIL BI-LOAD HP**	12/70	BI 3.8 + FE 3.5	No. 2 No. 3	8g BI + 28g FE = 36g	10
NEW	241 40 42	**ROTTWEIL BI-LOAD HP MAGNUM**	12/76	BI 3.8 + FE 3.5	No. 2 No. 3	8g BI + 32g FE = 40g	10
		ROTTWEIL FE-LOAD - ONLY FOR SHOTGUNS CARRYING STEEL PROOF MARKS					
NEW	241 40 45	**ROTTWEIL FE-LOAD HP**	12/70	FE 3.8 + FE 3.3	No. 2 No. 4	14g FE + 22g FE = 36g	10
NEW	241 40 44	**ROTTWEIL FE-LOAD HP MAGNUM**	12/76	FE 3.8 + FE 3.3	No. 2 No. 4	16g FE + 24g FE = 40g	10
		ROTTWEIL PREMIUM LINE COPPER CARTRIDGES					
	231 92 11	**ROTTWEIL COPPER UNLIMITED**	12/70	2.75	No. 6	34	10
	231 92 12	**ROTTWEIL COPPER UNLIMITED**	12/70	3.0	No. 5	34	10
	231 92 13	**ROTTWEIL COPPER UNLIMITED**	12/70	3.25	No. 4	34	10
	231 92 14	**ROTTWEIL COPPER UNLIMITED MAGNUM**	12/76	2.75	No. 6	40	10
	231 92 15	**ROTTWEIL COPPER UNLIMITED MAGNUM**	12/76	3.0	No. 5	40	10
	231 92 16	**ROTTWEIL COPPER UNLIMITED MAGNUM**	12/76	3.25	No. 4	40	10
		ROTTWEIL PROFESSIONAL LINE LEAD CARTRIDGES					
	231 68 38	**ROTTWEIL JAGD braun Plastik**	12/70	2.7	No. 6	36	10
	231 68 39	**ROTTWEIL JAGD braun Plastik**	12/70	3.0	No. 5	36	10
	231 68 40	**ROTTWEIL JAGD braun Plastik**	12/70	3.5	No. 3	36	10
	231 68 41	**ROTTWEIL JAGD braun Plastik**	16/70	3.0	No. 5	31	10
	231 68 43	**ROTTWEIL JAGD braun Streu Plastik**	12/70	2.7 ⊗	No. 6	34	10
	231 68 44	**ROTTWEIL JAGD braun Streu Plastik**	12/70	3.2 ⊗	No. 4	34	10
	231 68 45	**ROTTWEIL JAGD braun Streu Plastik**	16/70	2.7 ⊗	No. 6	30	10
		ROTTWEIL BASIC LINE LEAD CARTRIDGES					
	231 68 64	**ROTTWEIL SPECIAL 36**	12/70	2.5	No. 7	36	25
	231 68 65	**ROTTWEIL SPECIAL 36**	12/70	2.7	No. 6	36	25
	231 68 66	**ROTTWEIL SPECIAL 36**	12/70	3.0	No. 5	36	25
	231 68 67	**ROTTWEIL SPECIAL 36**	12/70	3.2	No. 4	36	25
	231 68 68	**ROTTWEIL SPECIAL 36**	12/70	3.5	No. 3	36	25
	231 68 69	**ROTTWEIL SPECIAL 36**	12/70	3.7	No. 2	36	25
	231 68 70	**ROTTWEIL SPECIAL 36**	12/70	4.0	No. 1	36	25
	231 68 73	**ROTTWEIL SPECIAL 12 F**	12/67.5	2.2	No. 8	32	25
	231 68 74	**ROTTWEIL SPECIAL 12 F**	12/67.5	2.5	No. 7	32	25
	231 68 75	**ROTTWEIL SPECIAL 12 F**	12/67.5	2.7	No. 6	32	25
	231 68 76	**ROTTWEIL SPECIAL 12 F**	12/67.5	3.0	No. 5	32	25
	231 68 77	**ROTTWEIL SPECIAL 12 F**	12/67.5	3.2	No. 4	32	25
	231 81 59	**ROTTWEIL SPECIAL 12 F / Streu**	12/67.5	2.7 ⊗	No. 6	32	25
	231 68 78	**ROTTWEIL SPECIAL 16 F**	16/67.5	2.5	No. 7	27	25
	231 68 79	**ROTTWEIL SPECIAL 16 F**	16/67.5	2.7	No. 6	27	25
	231 68 80	**ROTTWEIL SPECIAL 16 F**	16/67.5	3.0	No. 5	27	25

⊗ = spreader insert

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Item No.		Gauge	Shot size in mm	Shot number	Shot weight in g	Ctg/box	
231 68 81	**ROTTWEIL SPECIAL 20 F**	20/67.5	2.5	No. 7	26	25	
231 68 82	**ROTTWEIL SPECIAL 20 F**	20/67.5	2.7	No. 6	26	25	
231 86 44	**ROTTWEIL SPECIAL 20 F**	20/67.5	3.2	No. 4	26	25	
231 70 60	**ROTTWEIL Mark II 30 HV**	12/67.5	2.7	No. 6	30	25	
231 80 77	**ROTTWEIL Mark II 30 HV**	12/67.5	3.2	No. 4	30	25	

ROTTWEIL GAME EDITION

240 33 60	**ROTTWEIL GAME EDITION DUCK**	12/70	3.25	No. 4	32	100	
240 86 48	**ROTTWEIL GAME EDITION DUCK**	20/70	3.0	No. 5	24	100	
240 33 63	**ROTTWEIL GAME EDITION PIGEON**	12/70	2.8	No. 6	32	100	
240 86 52	**ROTTWEIL GAME EDITION PIGEON**	20/70	2.8	No. 6	30	100	
240 33 64	**ROTTWEIL GAME EDITION HARE**	12/70	3.5	No. 3	36	25	
240 33 66	**ROTTWEIL GAME EDITION CROW**	12/70	2.9	No. 5.5	34	25	
240 33 68	**ROTTWEIL GAME EDITION DEER**	12/70	3.75	No. 2	38	10	
240 66 01	**ROTTWEIL GAME EDITION PHEASANT**	12/67.5	2.7	No. 6	28	25	
240 86 51	**ROTTWEIL GAME EDITION PHEASANT**	20/70	2.7	No. 6	28	25	
240 54 50	**ROTTWEIL GAME EDITION GOOSE***	12/76	3.25	No. 4	35	10	
240 86 54	**ROTTWEIL GAME EDITION PARTRIDGE**	12/70	2.5	No. 7	32	25	

* Only for shotguns carrying steel proof marks

ROTTWEIL EXTRA LINE CARTRIDGES WITH LEAD BUCKSHOT

231 68 84	**ROTTWEIL EXPRESS**	12/67.5	4.5	(BBBB)	38 (70P)	10	
231 68 85	**ROTTWEIL EXPRESS**	12/67.5	5.0	(AA)	35 (47P)	10	
231 68 86	**ROTTWEIL EXPRESS**	12/67.5	6.2	(SSSG)	38 (27P)	10	
231 68 87	**ROTTWEIL EXPRESS**	12/67.5	7.4	(SpSG)	28.5 (12P)	10	
231 68 88	**ROTTWEIL EXPRESS**	12/67.5	8.6	(SG/LG)	33 (9P)	10	
231 68 89	**ROTTWEIL EXPRESS**	16/67.5	7.4	(SpSG)	22 (9P)	10	

ROTTWEIL EXTRA LINE CARTRIDGES WITH SHOTGUN SLUGS

231 68 90	**ROTTWEIL BRENNEKE MAGNUM**	12/76			39	5	
231 68 91	**ROTTWEIL BRENNEKE CLASSIC MAGNUM**	12/70			31.5	5	
231 68 92	**ROTTWEIL BRENNEKE Classic**	12/70			31.5	10	
231 68 93	**ROTTWEIL BRENNEKE Classic**	12/67.5			31.5	10	
231 68 97	**ROTTWEIL BRENNEKE Classic**	20/67.5			24	10	
231 74 66	**ROTTWEIL EXACT MAGNUM**	12/76			32	5	
231 71 55	**ROTTWEIL EXACT MAGNUM**	12/70			32	5	
231 70 54	**ROTTWEIL EXACT MAGNUM**	20/76			26	5	
231 70 51	**ROTTWEIL EXACT**	12/70			32	10	
231 71 54	**ROTTWEIL EXACT**	12/67.5			32	10	
231 70 52	**ROTTWEIL EXACT**	16/70			29	10	
231 75 31	**ROTTWEIL EXACT**	16/67.5			29	10	
231 70 53	**ROTTWEIL EXACT**	20/70			26	10	
241 40 66	**ROTTWEIL EXACT GREEN MAGNUM**	12/70			25	5	NEW
241 40 65	**ROTTWEIL EXACT GREEN**	12/70			25	5	NEW

ROTTWEIL STEEL LINE SOFT IRON CARTRIDGES

Item No.		Gauge	Shot size in mm	Shot number	Shot weight in g	Ctg/box	
	ROTTWEIL STEEL GAME HV- ONLY FOR SHOTGUNS CARRYING STEEL PROOF MARKS						
231 69 09	**ROTTWEIL STEEL GAME HV**	12/70	3.0	No. 5	32	25	
231 69 10	**ROTTWEIL STEEL GAME HV**	12/70	3.25	No. 4	32	25	
231 69 11	**ROTTWEIL STEEL GAME HV**	12/70	3.5	No. 3	32	25	
231 69 12	**ROTTWEIL STEEL GAME HV**	12/70	3.75	No. 2	32	25	
231 69 15	**ROTTWEIL STEEL GAME HV**	20/70	3.25	No . 4	24	10	
	ROTTWEIL STEEL GAME- ONLY FOR SHOTGUNS CARRYING STANDARD PROOF MARKS						
231 69 18	**ROTTWEIL STEEL GAME**	12/70	2.6	No. 6.5	32	25	
231 69 19	**ROTTWEIL STEEL GAME**	12/70	3.0	No. 5	32	25	
231 69 20	**ROTTWEIL STEEL GAME**	12/70	3.25	No. 4	32	25	
231 73 14	**ROTTWEIL STEEL GAME**	16/67.5	3.0	No. 5	26	10	
	ROTTWEIL STEEL GAME SPEED 28- ONLY FOR SHOTGUNS CARRYING STANDARD PROOF MARKS						
231 69 80	**ROTTWEIL STEEL GAME SPEED 28**	12/70	3.0	No. 5	28	25	
231 69 81	**ROTTWEIL STEEL GAME SPEED 28**	12/70	3.25	No. 4	28	25	

ROTTWEIL COMPETITION LINE LEAD CARTRIDGES

241 04 80	**ROTTWEIL TRAP GOLD 24 HV**	12/70	2.4	No. 7.5	24	25	NEW
241 03 72	**ROTTWEIL SKEET GOLD 24 HV**	12/70	2.0	No. 9	24	25	NEW
241 04 78	**ROTTWEIL SPORT GOLD 24 HV**	12/70	2.2	No. 8	24	25	NEW
241 04 79	**ROTTWEIL SPORT GOLD 28 HV**	12/70	2.2	No. 8	28	25	NEW
241 04 81	**ROTTWEIL SKEET STREU GOLD 24 HV**	12/70	2.0 ⊗	No. 9	24	25	NEW
240 51 53	**ROTTWEIL SPECIAL SKEET**	12/70	2.0	No. 9	24	25	NEW
231 91 04	**ROTTWEIL SPECIAL TRAP**	12/70	2.4	No. 7.5	24	25	
231 91 05	**ROTTWEIL SPECIAL TRAP**	12/70	2.4	No. 7.5	28	25	
241 29 72	**ROTTWEIL SPECIAL TRAP**	20/70	2.4	No. 7.5	24	25	NEW
231 94 69	**ROTTWEIL SPECIAL SKEET STREU**	12/67.5	2.0 ⊗	No. 9	24	25	
231 81 10	**ROTTWEIL SUBSONIC TRAP 28**	12/67.5	2.4	No. 7.5	28	25	
231 69 34	**ROTTWEIL FASAN FF**	12/67.5	2.4	No. 7.5	28	25	
231 69 35	**ROTTWEIL FASAN FF**	16/67.5	2.0	No. 9	28	25	
231 69 36	**ROTTWEIL FASAN FF**	16/67.5	2.4	No. 7.5	28	25	
231 69 37	**ROTTWEIL FASAN FF**	20/67.5	2.0	No. 9	24	25	
231 69 38	**ROTTWEIL FASAN FF**	20/67.5	2.4	No. 7.5	24	25	

ROTTWEIL COMPETITION LINE SOFT IRON CARTRIDGES

⊗ = spreader insert

	ROTTWEIL COMPETITION STEEL CARTRIDGES - FOR SHOTGUNS CARRYING STANDARD PROOF MARKS						
231 91 02	**ROTTWEIL STEEL SKEET HV**	12/70	2.2	No. 8	24	25	
231 91 03	**ROTTWEIL STEEL TRAP HV**	12/70	2.5	No. 7	24	25	
231 91 01	**ROTTWEIL STEEL TRAP HV**	12/70	2.5	No. 7	28	25	
241 29 70	**ROTTWEIL STEEL TRAP HV**	20/70	2.5	No. 7	24	25	NEW

RWS RIMFIRE CARTRIDGES

	Product	Item No.	Calibre/Use	Ctg./box
	Without ball	213 16 41	4 mm short	100
	With No. 7 ball	213 16 76	4 mm short	100
	Without ball	213 16 68	4 mm long	100
	Plus without ball	231 76 96	4 mm long	100
	With No. 7 ball	213 16 84	4 mm long	100

RWS FLOBERT CARTRIDGES

	Flobert Ball Bullet BB	231 93 55	6 mm	150
	Flobert Conical Bullet CB	231 93 56	6 mm	150
	Flobert Ball Bullet BB	213 09 98	9 mm	50
	Flobert Conical Bullet CB	213 10 05	9 mm	50
	Flobert Double Shot	213 20 95	9 mm 1.9 mm No. 10	50

RWS BLANK CARTRIDGES

		211 90 64	8x57 IS Blank	50

RWS LIVESTOCK STUN BLANKS

	for small livestock	*231 74 26	9x17 mm green	50
	for large livestock	*231 74 25	9x17 mm yellow	50
	for bulls and oxen	*231 74 28	9x17 mm blue	50
	for heaviest livestock	*231 74 27	9x17 mm red	50

RWS SHOTGUN BLANKS

	213 48 45		Gauge 12	10
	213 48 53		Gauge 16	10

GECO BLANK CARTRIDGES

	Product	Item No.	Calibre/Use	Ctg./box
		*231 86 31	6 mm Flobert Blank	100
		*231 86 30	.22 long Blank	50
		*231 73 19	8 mm Blank	50
		*231 75 30	9 mm PA Blank	25
		*231 73 22	9 mm PA Blank	50
	With extra-bright flash	*231 76 95	9 mm PA Blank Super Flash	25
		*231 86 38	9 mm R Blank (BP-RK)	50
		*231 75 08	9 mm R Blank (Nitro-RB)	50

GECO PLASTIC BLANK / DUMMY CARTRIDGES

	212 82 84	9 mm Luger	Blank	50
	*231 76 08	9 mm Luger	Dummy	50

Products marked * can be purchased without licence.

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

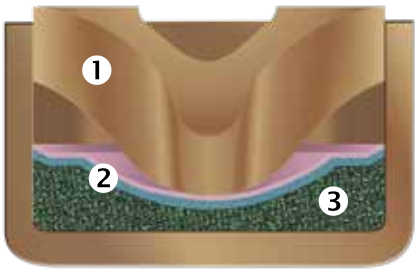
RELOADING

The ammunition counts

Handloading or reloading, the 'custom making' of their own cartridges offers both game and target shooters completely new possibilities. Alone the feeling of adjusting the cartridge exactly to their own needs by using first-class components is already a big thing for many. Apart from that, shooting becomes cheaper and the self-loader makes valuable experience with regard to ammunition and weapon.

Item No.	Primer-No.	Ø mm	Type	Suitability	Ctg./box	Sales pack.
RWS-ANVIL PRIMERS SINOXID (in slide-out packages)						
210 22 50	**4031**	**4.45**	small pistols	6.35; 7.65; 9 mm Luger; .32 S&W long; .38 S&W; .38 Special; .40 S&W; .357 Mag.	250	2500
210 30 60	**4047**	**4.45**	small pistols, Magnum	9 mm Luger; .32 S&W long; .38 Special; .40 S&W; .357 Mag.	250	2500
210 23 15	**5337**	**5.33**	small pistols	.45 Auto; .45 Colt; .44-40; .44 Mag.; .41 Mag.	250	2500
210 22 85	**4033**	**4.45**	small rifle	.22 Hornet; .222 Rem.; 5.6 x 50 5.6 x 50 R; .30 Carbine; .223	250	2500
210 23 58	**5341**	**5.33**	large rifle	5.6 x 52 R; 5.6 x 57; .243 Win.; 6.5 x 57; 7 x 57 R; 7 x 64; 8 x 57 IS; .404	250	2500
210 23 90	**5333**	**5.33**	large rifle cartridges, Magnum	6.5 x 68; 7 x 64; 7 mm Rem.Mag.; 8 x 68 S	250	2500
RWS-ANVIL PRIMERS - LEAD FREE (in slide-out packages)						GreenFire Technology
231 56 19	**4066**	**4.45**	small pistols	6.35; 7.65; 9 mm Luger; .40 S&W, .32 S&W long; .38 S&W; .38 Special; .357 Mag.	250	2500
RWS-BERDAN PRIMERS SINOXID (in collapsible packages)						
210 43 34	**4506**	**4.50**	small pistols	6.35 mm; 7.65 mm; 9 mm short etc.	250	2000
210 43 50	**4521**	**4.50**	small pistols	9 mm Luger etc.	250	2000
210 43 85	**5005**	**5.00**	large rifle	diverse pistol cartridges, not standardised	250	2000
210 44 23	**5620**	**5.50**	large rifle cartridges	from 6.5 to 9.3 mm etc.	250	2000
RWS PERCUSSION CAPS FOR MUZZLE LOADERS SINOXID (in tins)						
231 93 54	**1075**	**4.47**	ribbed	muzzle-loader	250	2500
231 93 53	**1075**	**4.47**	ribbed plus (heightened)	muzzle-loader	250	2500
210 38 93	**1218**	**5.90**		firing hammer	200	1000
210 52 76	**1081**	**6.12**		muzzle-loader	200	1000
RWS-PRIMER SINOXID (in slide-out packages)						
210 14 91	**7213**	**6.17**	medium ignition 209 S	shotgun cartridges	100	1000
210 16 88	**7002**	**5.68**	ignition VI	shotgun cartridges	100	1000

These products can be purchased without licence.



Schematic sectional view:

1 Anvil 2 lacquered coating 3 priming material

THREE.... TWO.... ONE.... IGNITION

RWS primers are manufactured in a modern advanced production system and are subject to demanding quality control tests. The production is done in the order of punching, cup drawing, priming compound fill, drying and compression as well as pressing in of the anvil. It is accompanied by integrated automatic quality inspections. With the latest optoelectronic testing equipment the deviations in the construction and dimensional accuracy are checked. The priming sensitivity of our primers is adjusted in a way that the ignition is caused with a 100 % certainty at a sufficiently deep and central impact of the firing pin of the weapon.

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

NEW

CASES

New practical packaging – new attractive prices

The case is the heart of the cartridge
Dimensional accuracy, safety and reloadability are only a few of the criteria that the conscientious reloader should demand from a case in order to achieve maximum performance. RWS cases offer all that and more. The tightest of tolerances, constant quality assurance during manufacture and the highest expectations from ourselves make RWS cases the best in the world. This is reflected in the large number of times a case can be reloaded. With RWS cases, reloading is not only fun but saves money as well.

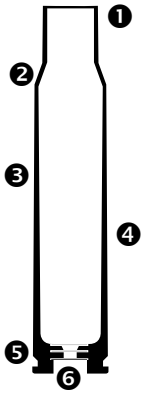
More comfort for reloaders
The premium quality of RWS cases is not only evident in the product itself but is also mirrored in its new packaging.

The advantages of our new packaging at a glance:

1. Cardboard boxes with sliding drawers
2. Easier access to the cases, even when boxes are stacked atop one another
3. Product is protected by a perforated seal
4. Two fields for recording current load data
5. Caliber designation is visible even when boxes are stacked atop one another
6. Ruler with metric (cm) and Imperial (inch) scales
7. Table with conversion factors for converting metric data to Imperial data and vice versa

The advantages of RWS cases at a glance:

1. Easy and exact recalibration through soft brass at the case mouth
2. Perfect sealing and fit into the chamber due to flexible brass material
3. Maximum re-usability with consistent performance thanks to highest demands on raw material and an optimized forming and annealing process
4. Best precision of the cartridge as the lowest wall thickness tolerances allow consistent loading
5. Highest safety and reliable function through very hard brass at the base
6. Easy multiple priming possible due to the hard and undeformable material at the primer hole



CASES

Rifle cartridge cases must withstand extreme pressures of up to 7,000 bar and experts consider them to be the life insurance of the shooter. To maintain the highest levels of quality and safety we have developed a series of demanding quality control tests. At the beginning of the production process samples are taken from every batch, loaded and exposed to excessive stress tests:

- With 10 % overpressure in specially prepared test barrels with partially inadmissible headspaces of 0.2 mm and 0.4 mm. To simulate rifles that are still being used although possibly shot out.
- With 30 % overpressure in test barrels that are made according to CIP specifications.

A case that passes this quality control is of special format. It is a RWS.

Cup | 1st draw | 2nd draw | Cutting | Prepressing | Head pressing | Necking and perforating | Turning of rim and length

RWS RIFLE CASES FOR BOXER PRIMERS

Item No.	Calibre	Cases/box	
241 27 01	**.222 Rem.**	200	
241 27 02	**.223 Rem.**	200	
241 27 05	**5.6 x 57**	100	
241 69 92	**6.5 Creedmoor**	100	NEW
241 23 55	**6.5 x 55 SE**	100	
241 23 54	**6.5 x 57**	100	
241 23 56	**6.5 x 57 R**	100	
241 23 69	**6.5 x 68**	100	
241 23 70	**.243 Win.**	100	
241 23 71	**.270 Win.**	100	
241 26 99	**7 x 57**	100	
241 27 00	**7 x 57 R**	100	
241 23 75	**7 x 64**	100	
241 23 76	**7 x 65 R**	100	
241 23 77	**7 mm Rem. Mag.**	100	
241 26 97	**.30-06**	100	
241 69 93	**.30-06 NICKEL**	100	NEW

Item No.	Calibre	Cases/box	
241 23 72	**.308 Win.**	100	
241 69 94	**.308 Win. NICKEL**	100	NEW
241 23 74	**.30 R Blaser**	100	
241 23 73	**.300 Win. Mag.**	100	
241 23 78	**8 x 57 JS**	100	
241 23 79	**8 x 57 JRS**	100	
241 23 80	**8 x 68 S**	100	
241 23 88	**.338 Lap. Mag.**	50	
241 23 81	**8.15 x 46 R**	100	
241 23 82	**9.3 x 62**	100	
241 23 83	**9.3 x 64**	50	
241 23 85	**9.3 x 74 R**	50	
241 23 87	**10.3 x 60 R**	50	
241 23 86	**.375 H&H Mag.**	50	
241 69 95	**10.3 x 68 Mag.**	50	NEW

These products can be purchased without licence.

RIFLE CARTRIDGE BULLETS

Worldwide RWS is the only major manufacturer of rifle cartridges who offers hunting bullets exclusively from their own production. With more than ten different game bullets and various others for military, police and sporting purposes, RWS is sure to have the widest range of bullets available.

RWS use the most modern production methods to ensure highest dimensional stability and a flawless surface structure. Only bullets that comply with the strict internal RWS specifications arrive at the gun dealers.

New practical packaging

RWS premium bullets are now available in new packaging – for even more comfort when reloading!

The advantages of our new packaging at a glance:

1. Cardboard boxes with sliding drawers
2. Easier access to the bullets, even when boxes are stacked atop one another
3. Product is protected by a perforated seal
4. All important data (bullet, caliber, bullet weight) are visible even when boxes are stacked atop one another

CALIBRE 5.6 MM

	Item No.	Type	Weight g	Weight gr	Dia.	Bullets/ box
	214 61 77	**TMS**	3.0	46	.224	100
	214 57 82	**MJ**	3.0	46	.224	100
	214 68 43	**MJ**	3.0	46	.224	1000
	214 58 47	**VMS**	3.0	46	.224	100
	214 56 50	**TMS**	3.24	50	.224	100
	231 33 43	**MJ**	3.4	52	.224	100
	231 33 44	**MJ**	3.4	52	.224	1000

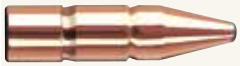
	Item No.	Type	Weight g	Weight gr	Dia.	Bullets/ box
	214 59 60	**TMS**	3.6	55	.224	100
	214 57 90	**TMS**	4.1	63	.224	100
	214 62 31	**KS**	4.8	74	.224	50
	214 56 42	**TMS**	4.6	71	.228	50

CALIBRE 6 MM

	214 64 36	**KS**	6.2	96	.243	50

These products can be purchased without licence.

CALIBRE 6.5 MM

	Item No.	Type	Weight g	Weight gr	Dia.	Bullets/ box
	240 74 46	**EVO GREEN**	6.0	93	.264	50
	214 64 60	**KS**	8.2	127	.264	50
	231 14 63	**DK**	9.1	140	.264	50
NEW 	241 69 58	**EVO**	10.1	156	.264	50
	214 56 85	**TMR**	10.3	159	.264	50

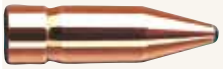
CALIBRE 7 MM

	Item No.	Type	Weight g	Weight gr	Dia.	Bullets/ box
	214 62 90	**KS**	8.0	123	.284	50
	231 85 20	**EVO GREEN**	8.2	127	.284	50
NEW 	241 10 37	**SPEED TIP PRO**	9.7	150	.284	50
	231 59 60	**EVO**	10.3	159	.284	50
	214 62 58	**KS**	10.5	162	.284	50
	214 55 29	**ID Classic**	10.5	162	.284	50
	214 60 29	**HMK**	11.2	173	.284	50
	214 55 37	**ID Classic**	11.5	177	.284	50

CALIBRE .270

	Item No.	Type	Weight g	Weight gr	Dia.	Bullets/ box
NEW 	241 69 60	**EVO GREEN**	6.2	96	.277	50
	214 59 95	**HMK**	8.4	130	.277	50
NEW 	241 69 67	**SPEED TIP PRO**	9.1	140	.277	50
	214 64 28	**KS**	9.7	150	.277	50
NEW 	241 69 59	**EVO**	10.0	154	.277	50

CALIBRE 7.62 MM / .30

	Item No.	Type	Weight g	Weight gr	Dia.	Bullets/ box
	241 81 19	**EVO GREEN**	9.0	139	.308	50
	214 63 04	**KS**	9.7	150	.308	50
	214 54 80	**ID Classic**	9.7	150	.308	50
	241 10 35	**SPEED TIP PRO**	10.7	165	.308	50
	214 63 71	**KS**	10.7	165	.308	50
	214 60 45	**DK**	10.7	165	.308	50
	241 69 66	**SCORION HPBT-Match**	10.9	168	.308	50
	214 60 10	**HMK**	11.7	180	.308	50
	214 54 99	**UNI Classic**	11.7	180	.308	50
	231 59 59	**EVO**	11.9	184	.308	50
	214 62 07	**KS**	13.0	200	.308	50
	231 47 19	**UNI Classic**	13.0	200	.308	50

Explanations:
TMS = Soft Point with pointed tip
TMR = Soft Point with round tip
MJ = Hunting Match with hollow point
VMS = Full Metal Jacket with pointed nose
KS = Kegelspitz
DK = Doppelkern
HMK = H-Mantel

CALIBRE 8 MM S

	Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box
	231 85 22	**EVO GREEN**	9.0	139	.323	50
NEW 	241 69 62	**SPEED TIP PRO**	11.7	180	.323	50
	214 64 44	**KS**	11.7	180	.323	50
	214 60 53	**HMK**	12.1	187	.323	50
	214 55 10	**ID Classic**	12.8	198	.323	50
	231 74 11	**EVO**	13.0	200	.323	50

CALIBRE 8.6 MM

	Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box
NEW 	241 10 38	**SPEED TIP PRO**	16.2	250	.338	50

CALIBRE 9.3 MM

	Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box
	231 85 23	**EVO GREEN**	11.9	184	.366	50
	214 60 02	**DK**	14.6	225	.366	50
	214 64 52	**KS**	16.0	247	.366	50
NEW 	241 69 63	**SPEED TIP PRO**	16.7	258	.366	50
	214 57 74	**TMR**	18.5	285	.366	50
	231 74 12	**EVO**	18.8	291	.366	50
	214 55 02	**UNI Classic**	19.0	293	.366	50

CALIBRE 10.3 MM

	Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box
 NEW	241 69 65	**HIT**	13.0	200	.413	50
 NEW	241 69 61	**EVO GREEN**	13.5	208	.413	50
 NEW	241 69 64	**SPEED TIP PRO**	18.8	285	.413	50

CALIBRE .375

	Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box
	214 59 28	**UNI Classic**	19.5	301	.375	50

Explanations:
TMS = Soft Point with pointed tip
TMR = Soft Point with round tip
MJ = Hunting Match with hollow point
VMS = Full Metal Jacket with pointed nose
KS = Kegelspitz
DK = Doppelkern
HMK = H-Mantel

These products can be purchased without licence.

DEDICATED SINCE 1902

CASES

NORMA CASES FOR BOXER PRIMERS

Item No.	Calibre	Cases/box
20243011	**.17 Rem.**	100
20255101	**.204 Ruger**	100
20257011	**.220 Swift**	100
20256021	**.221 Rem. Fireball**	100
20275061	**.300 AAC Blackout**	100
20257111	**.222 Rem.**	100
20257211	**.223 Rem.**	100
20257311	**.22-250 Rem.**	100
20256041	**5.6 x 52R**	100
10257101	**.22 PPC USA**	100
10260101	**6 PPC USA**	100
10260151	**6 mm Norma BR**	100
20260251	**6 mm Dasher**	100
10260181	**6 mm XC**	100
20260011	**.243 Win.**	100
20264111	**.25-06**	100
20265311	**6.5 Jap.**	100
20265351	**6.5 Carcano**	100
20266021	**.260 Rem.**	100
20265451	**6.5 x 54 MS**	100
20265131	**6.5 Creedmoor**	100
20265111	**6.5 Grendel**	100
20265511	**6.5x55 SE**	100
20265281	**6.5-284**	100
20268021	**.264 Win. Mag.**	100
20269011	**.270 Win.**	100
20269071	**.270 WSM**	50
20270041	**7x57R**	100
20270011	**7x57**	100
20270111	**7x61 Super**	100
20270221	**7mm-08 Rem.**	100
20270181	**7x65R**	100
20270501	**.280 Rem.**	100
20270121	**7x64**	100
20270211	**7mm Rem. Mag.**	100
20270251	**7mm Rem. Ultra Mag.**	100
20270451	**7mm Blaser Mag.**	50
20275111	**7.5x55 Swiss**	100
20276341	**7.62x54R**	100
20276231	**.308 Win.**	100
20276371	**.308 Norma Mag.**	50
20276401	**.30-06**	100
20276111	**.300 SAUM**	50
20276821	**.300 Blaser Mag.**	50
20276761	**.300 WSM**	50
20276861	**.300 RUM**	50
20276661	**.300 Win. Mag.**	50
20275611	**.300 Norma Mag.**	50
20276531	**.300 H&H**	50
20277011	**7.65 Arg.**	100
20277211	**7.7 Jap.**	100

NEW

Item No.	Calibre	Cases/box
20280011	**8x57 JS**	50
20280141	**8x57 JRS**	50
20285111	**.338-06 A-Square**	50
20285041	**.338 Win. Mag.**	50
10285071	**.338 Lapua Mag.**	50
10285201	**.338 Norma Mag.**	50
20285251	**.338 Blaser Mag.**	50
20290021	**.35 Whelen**	50
20290011	**.358 Norma Mag.**	50
20293011	**9.3x57**	50
20293111	**9.3x62**	50
20293211	**9.3x74R**	50
20295011	**.375 H&H Mag.**	50
20295211	**.375 Blaser Mag.**	50
20295151	**.375 Flanged Mag. NE**	50
20210431	**.404 Rimless NE**	50
20210601	**.416 Rigby**	50
20210671	**.416 Taylor**	50
20210691	**.416 Rem. Mag.**	50
20210701	**.500 / .416 NE**	20
20211231	**.45 Basic**	50
20211251	**.45-120**	50
20211401	**.450 Rigby Rimless**	20
20211551	**.458 Win.**	50
20211571	**.458 Lott**	50
20211631	**.470 Nitro Express**	20
20213151	**.500 Jeffery**	20
20213001	**.500 NE**	20
20213101	**.505 Magnum Gibbs**	20

NORMA WEATHERBY HÜLSEN

Item No.	Calibre	Bullets/box
20257401	**.224 Wby. Mag.**	50
20260201	**.240 Wby. Mag.**	50
20265021	**.257 Wby. Mag.**	50
20269121	**.270 Wby. Mag.**	50
20270321	**7mm Wby. Mag.**	50
20276601	**.300 Wby. Mag.**	50
20276771	**.30-378 Wby. Mag.**	50
20285161	**.338-378 Wby. Mag.**	50
20286021	**.340 Wby. Mag.**	50
20295131	**.375 Wby Mag**	50
20295121	**.378 Wby. Mag.**	50
20210651	**.416 Wby. Mag.**	50
20211601	**.460 Wby. Mag.**	50

DEDICATED SINCE 1902

RIFLE BULLETS

Norma bullets – a century of experience and development: for 100 years, this was the leitmotif for Norma quality and accuracy. A process of continuous development from the steel-jacketed bullets of yesteryear to the modern precision bullet with gilding metal jacket and bonded core has led Norma to its current position at the top. The reason for their success is very simple: a well-thought-out manufacturing process and continuous inspection of every component all the way to the finished product.

CAL. 5.7 MM (.224)

	Item No.	Type	Weight g	Weight gr	Bullets/ box
	20657011	**SP**	3.2	50	100
	20657041	**SP**	3.4	53	100
	20657001	**Tipstrike Varmint**	3.6	55	100
	20657131	**Oryx**	3.6	55	100
	20657081	**FMJ**	3.6	55	100
	20657051	**SP**	4.0	62	100

CAL. 6 MM (.243)

	Item No.	Type	Weight g	Weight gr	Bullets/ box
	20660141	**Tipstrike Varmint**	4.9	76	100
	20660701	**FMJ**	6.2	95	100
	20660501	**Oryx**	6.5	100	100
	20660031	**SP**	6.5	100	100
	10660162	**Diamond Line**	6.8	105	500

CAL. 6.5 MM (.264)

	Item No.	Type	Weight g	Weight gr	Bullets/ box
	20665202	**HPBT**	6.5	100	500
	10665201	**HPBT**	6.5	100	500
	20665201	**HPBT**	6.5	100	100
	20665141	**FMJ**	7.8	120	100
	10665081	**Diamond Line**	8.4	130	500
	10665091	**Golden Target**	8.4	130	500

	Item No.	Type	Weight g	Weight gr	Bullets/ box	
	20665651	**Bondstrike Extreme**	9.3	143	100	NEW
	20665241	**Oryx**	10.1	156	100	
	20665321	**Alaska**	10.1	156	100	
	20665351	**Vulkan**	10.1	156	100	

CAL. .270

	Item No.	Type	Weight g	Weight gr	Bullets/ box
	20669311	**FMJ**	8.4	130	100
	20669241	**Tipstrike**	9.1	140	100
	20669501	**Oryx**	9.7	150	100
	20669351	**Vulkan**	10.1	156	100
	20669601	**Oryx**	10.7	165	100

CAL. 7 MM (.284)

	Item No.	Type	Weight g	Weight gr	Bullets/ box
	20670031	**FMJ BT**	9.7	150	100
	20670041	**Oryx**	10.1	156	100
	20670141	**Tipstrike**	10.4	160	100
	20670051	**Oryx**	11.0	170	100
	20670061	**Vulkan**	11.0	170	100

CAL. .30 (.308)

	Item No.	Type	Weight g	Weight gr	Bullets/ box
	20676511	**FMJ BT**	9.5	146	100
	20676512	**FMJ BT**	9.5	146	500

These products can be purchased without licence.

	Item No.	Type	Weight g	Weight gr	Bullets/ box
	20676161	**Oryx**	10.7	165	100
	10676351	**Diamond Line**	10.9	168	100
	20676891	**Tipstrike**	11.0	170	100
	20676871	**Bondstrike Extreme**	11.7	180	100
	20676441	**Oryx**	11.7	180	100
	20676481	**Alaska**	11.7	180	100
	20676531	**Vulkan**	11.7	180	100
	10676361	**Diamond Line**	12.0	190	100
	20676391	**Oryx**	13.0	200	100

CAL. 8 MM S (.323)

	20680141	**FMJ**	8.0	123	100
	20680011	**Oryx**	12.7	196	100
	20680031	**Alaska**	12.7	196	100
	20680201	**Vulkan**	12.7	196	100

CAL. .338

	20686101	**FMJ BT**	14.6	225	100
	20686161	**Oryx**	14.9	230	50

CAL. .358

	20690091	**FMJ**	15.0	232	100
	20690071	**Oryx**	16.2	250	50

	Item No.	Type	Weight g	Weight gr	Bullets/ box

CAL. 9.3 MM (.366)

	20693071	**Oryx**	15.0	232	100
	20693051	**Vulkan**	15.0	232	100
	20693061	**FMJ**	15.0	232	100
	20693081	**Oryx**	18.5	285	50
	20693161	**Alaska**	18.5	285	50
	20693121	**Oryx**	21.0	325	50

CAL. .375

	20695071	**Oryx**	19.4	300	50

NORMA RELOADING MANUAL

Our history of loading the best ammunition in the world has helped us become experts on powder, recipes and other details that ensure a successful hunt, a great showing in competition or just some fun on the range. That's why the Norma Reloading manual is a must for beginners or seasoned veterans of reloading. It contains up-to-date information, important know-how and information to keep you and your reloads at the top of your game. Log on to www.norma-ammunition.com to learn more and track down your copy today.

NEW

ANVIL PRIMERS

GECO reloading components have been valued by sports shooters and hunters for decades and are synonymous with professional quality worldwide. The extensive GECO product range has now been complemented with two new Boxer primers: GECO Small Pistol and GECO Small Rifle Primers. Both are highly developed, ensure simple use and are distinguished by optimum sensitivity. Plus, the GECO Small Rifle and GECO Small Pistol primers are available in practical packages of 250, that offer ideal value for money.

Item No.	Type	Ø mm	Suitability	Calibre	pcs/ box	Sales pack.
240 94 51	**Small Pistol primer**	4.45	small pistol	6.35 7.65 9 mm Luger 9x21 .32 S&W long .38 Special WC .38 Special .38 Super Auto .40 S&W .357 Mag.	250	2500

Item No.	Type	Ø mm	Suitability	Calibre	pcs/ box	Sales pack.
240 94 52	**Small Rifle primer**	4.45	small rifle	.22 Hornet .222 Rem. 5.6 x 50 5.6 x 50 R .30 Carbine .223 Rem.	250	2500

These products can be purchased without licence.

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

RIFLE CARTRIDGE BULLETS

CALIBRE .243

	Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box
	214 58 55	**TM**	6.8	105	.243	50

CALIBRE 6.5 MM

	Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box
	231 85 68	**TM**	10.1	156	.264	50
	231 85 62	**Plus**	10.1	156	.264	50

CALIBRE 7 MM

		Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box
NEW		241 69 69	**ZERO**	8.2	127	.284	50
NEW		241 69 85	**Ex-press**	10.0	155	.284	50
		214 54 05	**TM**	10.7	165	.284	50
		231 85 63	**Plus**	11.0	170	.284	50

CALIBRE .270

		Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box
NEW		241 69 84	**Ex-press**	8.4	130	.277	50
NEW		241 69 68	**TM**	9.1	140	.277	50
NEW		241 69 89	**Plus**	9.7	150	.277	50

These products can be purchased without licence.

CALIBRE .30

	Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box	
	241 69 70	**ZERO**	8.8	136	.308	50	NEW
	241 69 87	**Ex-press**	10.7	165	.308	50	NEW
	214 54 13	**TM**	11.0	170	.308	50	
	231 85 64	**Plus**	11.0	170	.308	50	

CALIBRE 8 MM S

	Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box	
	241 69 71	**ZERO**	9.0	139	.323	50	NEW
	214 54 21	**TM**	12.0	185	.323	50	
	231 85 65	**Plus**	12.7	196	.323	50	

CALIBRE 9.3 MM

	Item No.	Type	Weight g	Weight gr	Dia	Bullets/ box	
	241 69 72	**ZERO**	11.9	184	.366	50	NEW
	241 69 88	**Ex-press**	16.5	255	.366	50	NEW
	214 54 48	**TM**	16.5	255	.366	50	
	231 85 66	**Plus**	16.5	255	.366	50	

ROTTWEIL X-HARD SHOT

Item No.	Shot size	Shot number		Bag wt. kg
231 77 24	**2.0 mm**	9	Lead	5 kg
231 77 25	**2.4 mm**	7.5	Lead	5 kg
231 77 26	**3.0 mm**	5	Lead	5 kg

The selection of GECO bullets and cases for handgun cartridges has been continuously expanded over the years and consequently targeted to the needs of pistol and revolver shooters. All reloading components feature practical packaging and are offered at the usual good GECO price-to-performance ratio. For occasional reloaders and for testing, the smaller packs are ideal, although heavy users will want to choose the large bulk packages. In 2020, the assortment has expanded to include .45 Auto and .44 Magnum Hexagon bullets, as well as .44 Magnum cases.

GECO BULLETS FOR PISTOL AND REVOLVER CARTRIDGES

	Calibre	Type	Weight g	Weight gr	Dia	Item No.	Bullets/ box	
	**9mm**	FMJ RN	8.0	124	.355	240 04 00 240 04 01	200 1500	
	**9mm**	Hexagon	8.0	124	.355	231 90 10 231 90 11	200 1500	
	**9mm**	FMJ FN	10.0	154	.355	231 81 47 231 81 48	200 1500	
	**9mm**	HP	7.5	115	.355	231 81 49	200	
	**.40 S&W**	FMJ FN	11.7	180	.401	231 81 50 231 81 51	200 1500	
	**.45 Auto**	Hexagon	13.0	200	.451	241 78 48	200	NEW
	**.45 Auto**	FMJ RN	14.9	230	.451	231 81 53	200	
	**.45 Auto**	HP	14.9	230	.451	231 81 54	200	
	**.38 SP/.357 Mag.**	FMJ FN	10.2	158	.357	231 81 55 231 81 56	200 1500	
	**.38 SP/.357 Mag.**	HP	10.2	158	.357	231 81 57	200	
	**.38 SP/.357 Mag.**	Hexagon	11.7	180	.357	231 94 83 231 94 84	200 1500	
	**.44 Rem. Mag.**	Hexagon	19.4	300	.431	241 78 52	150	NEW

GECO CASES FOR PISTOL AND REVOLVER CARTRIDGES

Item No.	Calibre	Cases/box
231 81 29	**9mm Luger**	100
231 81 30	**9mm Luger**	1000
231 81 31	**.38 Super Auto**	100
231 81 32	**.38 Super Auto**	1000
231 81 33	**.40 S&W**	100
231 81 34	**.40 S&W**	1000
231 81 35	**.45 Auto**	100
231 81 36	**.45 Auto**	1000

Item No.	Calibre	Cases/box	
231 81 37	**.38 Special**	100	
231 81 38	**.38 Special**	1000	
231 81 39	**.357 Mag**	100	
231 81 40	**.357 Mag**	1000	
241 78 53	**.44 Rem. Mag**	50	NEW
240 94 87	**.44 Rem. Mag**	1000	NEW

These products can be purchased without licence.

POWDER

There is a suitable type of powder for every purpose – it is gelatinized nitrocellulose, partially with special additives. Basic materials, form and final treatment decide whether it burns slowly or fast, and how well it functions with the different calibres and bullets. You differentiate between monobasic, bibasic and tri-basic propellant powders. Powder that is made of pure nitrocellulose is called monobasic. In case of ammunition with relatively low bullet weight but high muzzle velocity, i. e. with high-performance ammunition with extended trajectory, the energy of pure nitrocellulose is no longer sufficient. It is increased by adding higher energy like nitroglycerine or similar materials. All propellant powders are without exception subject to the requirements of the law on explosives. We buy our propellant powders from renowned European powder manufacturers. Before their use we test them in the chemistry lab against deterioration whether the specific features of the powder type has been preserved.

FOR RIFLE CARTRIDGES

Product	Amount	Item No.
R 901	**Canister 500 g**	**240 71 91**

Offensive powder, e.g. for the .222 Rem. 5.6 x 50 (R) Magnum cartridges. This powder is primarily suitable for small capacity cases when light bullets are used. In additio, it is also suitable for producing reduced loads with light to medium weight bullets.

R 902	**Canister 500 g**	**240 71 92**

This powder burns slower than the R 901 and is therefore suitable for many types of cases ranging from the .222 Rem. to the 9.3 x 74 R. It is generally considered to be suitable for medium cases and light to medium-weight bullets as well as for short barrels.

R 903	**Canister 500 g**	**240 71 93**

This is the universal powder for all medium-sized rifle cartridges and bullets of normal weight. It is suitable for calibres ranging from 5.6 x 50 to 9.3 x 74 R. Decisive for the universality of R 903 is not only its adoptability to many different types of case forms, but also its flexibility in terms of the ignition, which still leads to uniform and complete burn-up of the powder even when the load has a low density.

Product	Amount	Item No.
R 904	**Canister 500 g**	**240 71 94**

This powder burns more slowly than the R 907 and can possibly cause weaker gas pressure in suitable cases while at the same time exhibiting the same performance. In comparison to the next slower R 905 Rottweil Powder, the extremely progressive powder of the Rottweil product range, the R 904 has the advantage of requiring less volume. Thus, if the case volume is limited, better performance can be achieved.

R 905	**Canister 500 g**	**240 71 95**

This is the most progressive powder in the Rottweil product range and is particularly well suited for loading large volume high-performance cartridges when heavy bullets are to be shot from long barrels. The range of application extends from 5.6 x 57 to 8 x 68 S and other Magnum cartridges.

R 907	**Canister 500 g**	**240 71 96**

In terms of its burn-up rate, the R 907 is between the R 903 and the R 904. It fills the relatively large void between the two types of powder. Load data has been recorded for several different calibres. It appears to be particularly well suited for 8 mm cartridges (.318 diameter).

Warning - Fire or projection hazard. - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. - Keep only in original packaging. - Wear protective gloves/protective clothing/eye protection/face protection. - In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.

DEDICATED SINCE 1902

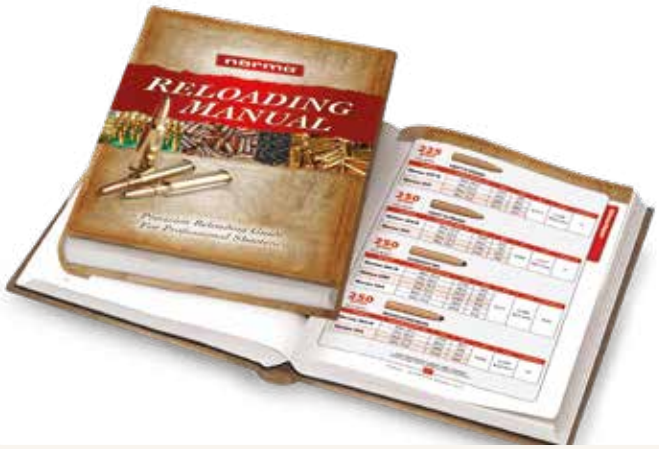
FLEXIBLE RANGE OF POWDERS

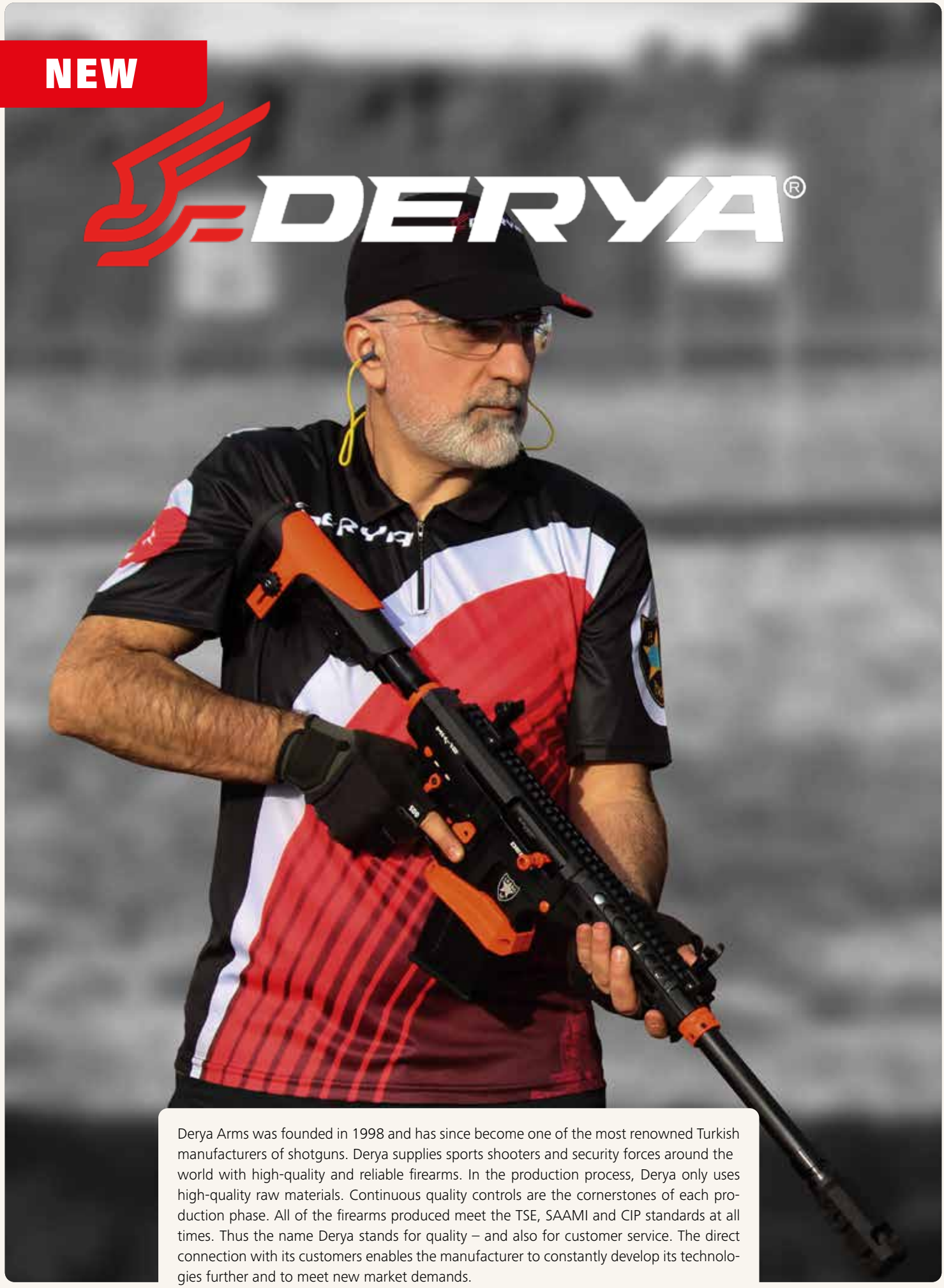
The shooter using Norma powder can safely trust that loading data, pressure, velocity and accuracy are maintained at the same high level from lot to lot. A flexible range of powders offers the hand-loader many opportunities to load the best possible cartridges in any calibre choice. Many manufacturers use Norma gunpowder in their factory loads today which is the best proof of Norma's high quality gun powder.

Product	Amount	Item No.
200	**Canister 500 g**	**20902005**
Our fastest-burning propellant is suitable for smaller cartridges such as the 222 Remington and 22 Hornet. It can also be used to shoot lightweight, low velocity bullets in medium calibres such as the 308 Win.		
201	**Canister 500 g**	**20902015**
This is very suitable for calibres with small case volume in relation to the bore size, such as 9.3x57 and 45-70. It's also the right choice for shooting lightweight bullets in medium-sized cases such as the 30-06.		
202	**Canister 500 g**	**20902025**
Specially developed to provide maximum performance in the 308 Winchester, 202 is a very useful powder for cases with medium capacity compared to calibre, such as the 8x57, 9.3x62 and 9.3x74R.		
203B	**Canister 500 g**	**20902035**
Specifications for 203B differ slightly from the previous 203 powder. It is flexible, and is useful from 22-250 to 358 Norma Mag. It is very suitable for 6 mm Norma BR and 308 Winchester loaded with heavier bullets.		
204	**Canister 500 g**	**20902045**
A slow-burning propellant, 204 provides good performance and quite good accuracy in calibres such as 6.5x55 and 30-06.		
MRP	**Canister 500 g**	**20902155**
A very flexible magnum powder, MRP is suitable for calibres with relatively large case volume in relation to the calibre. It has been well-known for many years as a high performance powder in all magnum calibres.		
217	**Canister 500 g**	**20902175**
This is a very flexible magnum powder, suitable where there is relatively large case volume in relation to the bore size. It has been well-known for many years as a high performance powder in all magnum calibres.		

Product	Amount	Item No.
URP	**Canister 500 g**	**20902195**
A high-energy, mid-range propellant, URP is an excellent choice for medium-sized cartridges such as 7x64 and 30-06.		
MATCH POWDER 1211	**Canister 500 g**	**10902117**
MATCH POWDER 1214	**Canister 500 g**	**10902147**

Reloading data for sports and hunting cartridges are available at www.norma-ammunition.com or in Norma's Reloading Manual. Please note that for the match powders 1211 and 1214 data may be found only on the cans.





Derya Arms was founded in 1998 and has since become one of the most renowned Turkish manufacturers of shotguns. Derya supplies sports shooters and security forces around the world with high-quality and reliable firearms. In the production process, Derya only uses high-quality raw materials. Continuous quality controls are the cornerstones of each production phase. All of the firearms produced meet the TSE, SAAMI and CIP standards at all times. Thus the name Derya stands for quality – and also for customer service. The direct connection with its customers enables the manufacturer to constantly develop its technologies further and to meet new market demands.

MK12-IPSC

Derya is an official ROYALTY partner of the International Practical Shooting Confederation (IPSC). It is Derya's primary objective to support and further develop PRACTICAL and COMPETITION shooting around the world.

SEMI AUTO MK-12 IP-600 12/76

SEMI AUTO MK-12 IP-500 12/76

SEMI AUTO MK-12 IP-400 12/76

All MK-12 IPSC models are supplied with three 10 shot magazines.

DERYA magazine 10 shot

Item No.	Type	Calibre	Magazine	Barrel length	Weight
241 18 04	**DERYA SEMI AUTO MK-12 IP-600**	12/76	10+1	61 cm	3.5 kg
241 17 55	**DERYA SEMI AUTO MK-12 IP-500 L "long compensator"**	12/76	10+1	50 cm	3.4 kg
241 17 57	**DERYA SEMI AUTO MK-12 IP-500 M**	12/76	10+1	50 cm	3.4 kg
241 17 58	**DERYA SEMI AUTO MK-12 IP-400**	12/76	10+1	43 cm	3.3 kg

ACCESSORIES

DERYA magazine 10 shot

DERYA screw-in choke set

Item No.	Type
241 17 74	**DERYA magazine 10 shot**
241 79 19	**DERYA magazine 5 shot (no fig.)**
241 17 76	**DERYA magazine pouch (no fig.)**
241 17 77	**DERYA screw-in choke set (F/M/C)**
241 79 20	**DERYA screw-in choke 1/1 (no fig.)**
241 79 21	**DERYA screw-in choke 1/2 (no fig.)**
241 79 22	**DERYA screw-in choke Cyl. (no fig.)**

DERYA products are not yet available in all countries.
Please ask your dealer.

MK12

SEMI AUTO MK-12 AS-600 12/76

SEMI AUTO MK-12 AS-500 12/76

SEMI AUTO MK-12 AS-400 12/76

SEMI AUTO MK-12 AS-350 12/76

SEMI AUTO MK-12 AS-220 12/76

Item No.	Type	Calibre	Magazine	Barrel length	Weight
241 17 61	**DERYA SEMI AUTO MK-12 AS-600**	12/76	2+1,5+1,10+1	61 cm	3.5 kg
241 17 63	**DERYA SEMI AUTO MK-12 AS-500**	12/76	2+1,5+1,10+1	50 cm	3.4 kg
241 17 64	**DERYA SEMI AUTO MK-12 AS-400**	12/76	2+1,5+1,10+1	43 cm	3.3 kg
241 17 65	**DERYA SEMI AUTO MK-12 AS-350**	12/76	2+1,5+1,10+1	35 cm	3.2 kg
241 17 66	**DERYA SEMI AUTO MK-12 AS-220**	12/76	2+1,5+1,10+1	22 cm	3.0 kg

DERYA products are not yet available in all countries. Please ask your dealer.

MK12 - SPECIAL EDITION & BULLPUP

SEMI AUTO MK-12 AS-103 GP 12/76

SEMI AUTO MK-12 AS-107 T 12/76

SEMI AUTO BULLPUP N-100 12/76

Item No.	Type	Calibre	Magazine	Barrel length	Weight
241 17 67	**DERYA SEMI AUTO MK-12 AS-103GP 12/76 „O.D. Green“**	12/76	2+1,5+1,10+1	50 cm	3.5 kg
241 17 68	**DERYA SEMI AUTO MK-12 AS-107 T 12/76 „Zombie Green“**	12/76	2+1,5+1,10+1	50 cm	3.5 kg
241 17 70	**DERYA SEMI AUTO BULLPUP N-100 12/76**	12/76	2+1,5+1,10+1	50 cm	3.5 kg

COMPENSATORS

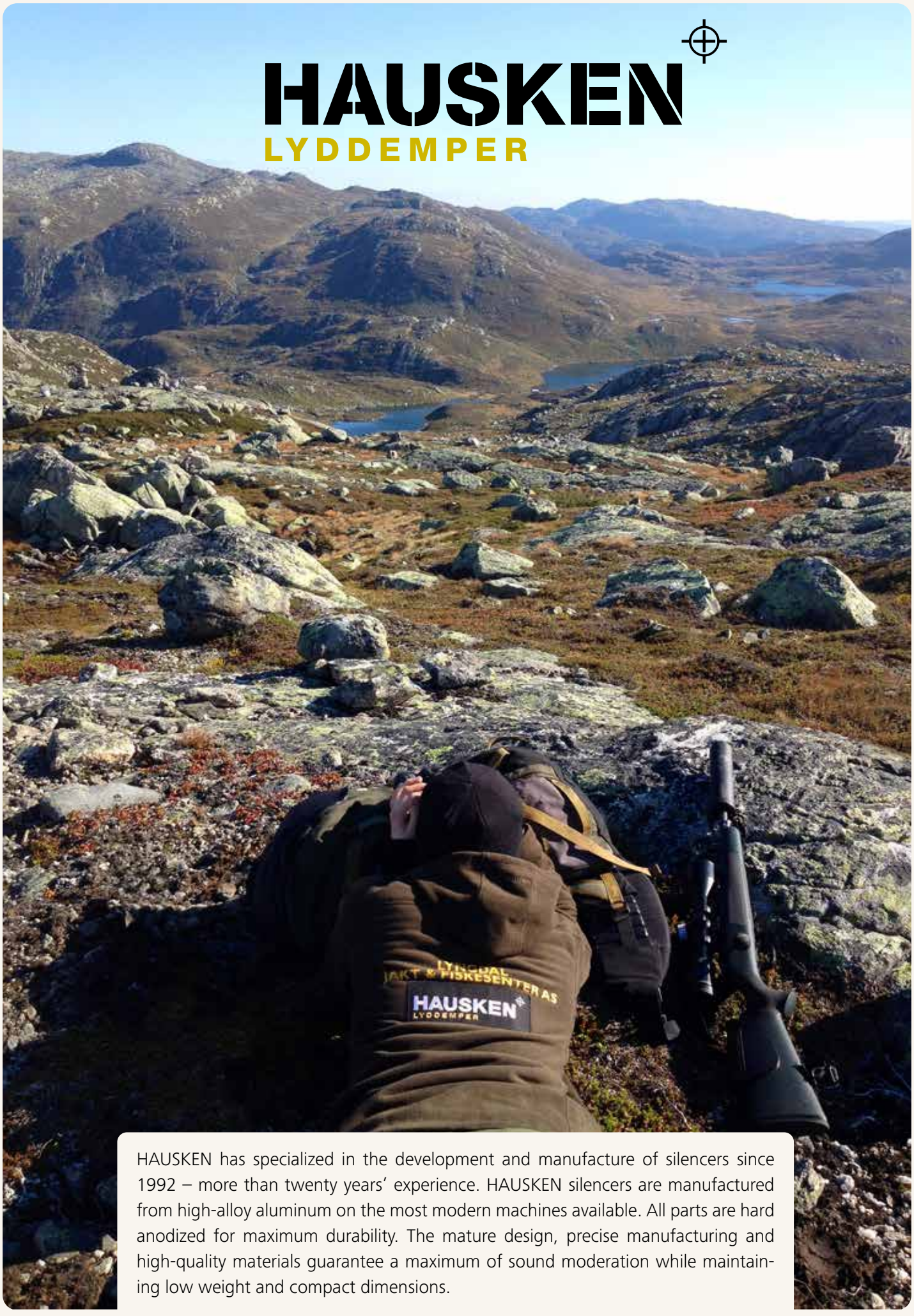
DERYA COMPENSATOR SHORT

DERYA COMPENSATOR MEDIUM

DERYA COMPENSATOR LONG

Item No.	Type
241 17 79	**DERYA COMPENSATOR SHORT**
241 17 80	**DERYA COMPENSATOR MEDIUM**
241 17 78	**DERYA COMPENSATOR LONG**

HAUSKEN
LYDDEMPER



HAUSKEN has specialized in the development and manufacture of silencers since 1992 – more than twenty years' experience. HAUSKEN silencers are manufactured from high-alloy aluminum on the most modern machines available. All parts are hard anodized for maximum durability. The mature design, precise manufacturing and high-quality materials guarantee a maximum of sound moderation while maintaining low weight and compact dimensions.

HAUSKEN JAKT WD 60 XTRM MK2

The HAUSKEN WD 60 XTRM MK2 is the flagship of the house of HAUSKEN. This silencer is the ideal choice for hunters who are looking for the absolute maximum in sound moderation. Through its large internal volume and integral stainless steel mesh, the HAUSKEN WD 60 XTRM MK2 optimally dampens the muzzle blast, even with cartridges that release large quantities of gas. Maximum dampening of cartridges like the 9.3x62 or .300 Win. Mag. is no problem. This silencer is not suitable for rifles with open sights. Maximum barrel diameter 23 mm. Sound modulation ca. 38-45 dB*

Item No.	Caliber	
241 09 46	.243 - 7 mm	NEW
240 67 84	.30	
240 67 85	8 mm S	
240 67 86	8.6 mm - .338	
240 67 87	9.3 mm - .375	

Other models and configurations upon inquiry.

Manufacturer's general technical data:

Outside Ø	Weight	Length	Length past the rifle muzzle	Thread
60 mm	490 g	224 mm	140 mm*	18x1

* with thread M17x1: plus 19 mm

HAUSKEN JAKT WD 60 MK2

This silencer is the ideal choice for hunters who are looking for optimal sound moderation for magnum rifles. The large internal volume of the HAUSKEN WD 60 MK2 can handle a large quantity of expanding gases. Silencing calibers like 9.3x62 or .300 Win. Mag. is now no problem. This silencer is not suitable for rifles with open sights. Maximum barrel diameter 23 mm. Sound modulation ca. 35-40 dB*

Item No.	Caliber	
241 09 45	.243 - 7 mm	NEW
241 08 26	.30	
241 08 27	8 mm S	
241 08 28	8.6 mm - .338	
241 08 29	9.3 mm - .375	

Other models and configurations upon inquiry

Manufacturer's general technical data:

Outside Ø	Weight	Length	Length past the rifle muzzle	Thread
60 mm	433 g	224 mm	140 mm *	18x1

* with thread M17x1: plus 19 mm

* variies depending on calibre, barrel length and cartridge

Please observe the current laws of your country for the purchase and use of silencers!

HAUSKEN products are not yet available in all countries. Please ask your dealer.

HAUSKEN JAKT JD 224 XTRM MK2

Maximum silencer performance for the most demanding customers. The JD 224 XTRM MK2 impresses with its outstanding noise modulation and compact dimensions. Thanks to the over-barrel telescoped design, the rifle's overall length is only 140 mm longer than normal. The integral woven stainless steel mesh increases modulation by a further 3-7 dB* compared to the 'normal' HAUSKEN JD 224 MK2. The use of high-alloy aluminum makes this lightweight 372 g silencer also suitable for magnum calibers. This silencer is not suitable for rifles with open sights. Maximum barrel diameter 23 mm. Sound modulation ca. 33-40 dB*

Item No.	Caliber
240 84 53	.22
240 84 54	.243 - 7 mm
240 67 80	.30
240 67 81	8 mm S
240 67 82	8.6 mm - .338
240 67 83	9.3 mm - .375

Other models and configurations upon inquiry

Manufacturer's general technical data:

Outside Ø	Weight	Length	Length past the rifle muzzle	Thread
50 mm	372 g	224 mm	140 mm *	18x1

* with thread M17x1: plus 19 mm

HAUSKEN JAKT JD 224 MK2

The top seller from the house of HAUSKEN. The JD 224 MK2 unites high modulation performance with low weight and compact dimensions. Thanks to its telescoped design, the handiness of the rifle will hardly be affected. The use of high-alloy aluminum makes this lightweight silencer also suitable for magnum calibers. This silencer is not suitable for rifles with open sights. Maximum barrel diameter 23 mm. Sound modulation ca. 31-37 dB*

Item No.	Caliber
240 84 61	.22
240 84 62	.243 - 7 mm
240 84 63	.30
240 84 64	8 mm S
240 84 65	8.6 mm - .338
240 84 66	9.3 mm - .375

Other models and configurations upon inquiry

Manufacturer's general technical data:

Outside Ø	Weight	Length	Length past the rifle muzzle	Thread
50 mm	309 g	224 mm	140 mm *	18x1

* with thread M17x1: plus 19 mm

* variies depending on calibre, barrel length and cartridge

HAUSKEN products are not yet available in all countries. Please ask your dealer.

Please observe the current laws of your country for the purchase and use of silencers!

HAUSKEN JAKT JD 224 LITE XTRM MK2

Maximum sound moderation with a very slender and elegant appearance. That's the 224 LITE XTRM MK2 with its 45 mm diameter and a weight of just 348 g. Nonetheless, it offers the same performance as the JD 224 MK2*. This slender silencer is especially suitable for calibers with a small case volume like the 6.5x57 and .308 Win. Despite its slender profile, it is also suitable for use with magnum calibers. Due to its over-barrel design it is not suitable for rifles with open sights. Maximum barrel diameter 23 mm. Sound modulation ca. 31-37 dB*

Item No.	Caliber
241 03 16	.22
241 08 75	.243 -7 mm
240 99 61	.30
241 03 20	8 mm S
241 03 18	9.3 mm - .375

Other models and configurations upon inquiry

Manufacturer's general technical data:

Außen Ø	Weight	Length	Length past the rifle muzzle	Thread
45 mm	348 g	224 mm	140 mm *	18x1

* with thread M17x1: plus 19 mm

HAUSKEN JAKT JD 224 LITE MK2

Slender, light and elegant. That's the JD 224 LITE MK2 with its 45 mm diameter and a weight of only 306 g. This slender silencer is especially well-suited to calibers with a small case volume like the 6.5x57 and .308 Win. Despite its slender profile, it is also suitable for use with magnum calibers. Due to its over-barrel design it is not suitable for rifles with open sights. Maximum barrel diameter 23 mm. Sound modulation ca. 29-31 dB*

Item No.	Caliber
241 03 13	.22
241 08 74	.243-7 mm
240 99 60	.30
241 03 19	8 mm S
241 03 15	9.3 mm - .375

Other models and configurations upon inquiry

Manufacturer's general technical data:

Outside Ø	Weight	Length	Length past the rifle muzzle	Thread
45 mm	306 g	224 mm	140 mm *	18x1

* with thread M17x1: plus 19 mm

* variies depending on calibre, barrel length and cartridge

HAUSKEN JAKT JD 184 XTRM MK2

Maximum performance in a very compact silencer. That's the JD 184 XTRM MK2. This silencer extends the overall length of the gun by only 10 cm yet offers the same silent performance as its big brother, the JD 224 MK2. And the JD 184 XTRM MK2 weighs only 302 g. It is the ideal silencer for rifles in standard calibers such as .308 Win. or 8x57 IS. The use of high-alloy aluminum makes this very compact silencer especially suitable for magnum calibers. This silencer is not suitable for use on rifles with open sights. Maximum barrel diameter 23 mm. Sound modulation ca. 31-37 dB*

Item No.	Caliber
240 84 50	.22
240 71 60	.243 - 7 mm
240 67 78	.30
240 67 79	8 mm S
240 84 51	8.6 mm - .338
240 84 52	9.3 mm - .375

Other models and configurations upon inquiry

Manufacturer's general technical data:

Outside Ø	Weight	Length	Length past the rifle muzzle	Thread
50 mm	302 g	184 mm	100 mm *	18x1

* with thread M17x1: plus 19 mm

HAUSKEN JAKT JD 184 MK2

The telescoped design of the JD 184 MK2 increases the rifle's overall length by only about 10 cm. It offers the perfect balance between sound modulation, weight and handiness. Thanks to the high-alloy aluminum housing, this lightweight silencer is also usable with magnum calibers. This silencer is not suitable for use on rifles with open sights. Maximum barrel diameter 23 mm. Sound modulation ca. 29-31 dB*

Item No.	Caliber
240 84 55	.22
240 84 56	.243 – 7 mm
240 84 57	.30
240 84 58	8 mm S
240 84 59	8.6 mm - .338
240 84 60	9.3 mm - .375

Other models and configurations upon inquiry

Manufacturer's general technical data:

Outside Ø	Weight	Length	Length past the rifle muzzle	Thread
50 mm	272 g	184 mm	100 mm *	18x1

* with thread M17x1: plus 19 mm

* variies depending on calibre, barrel length and cartridge

Please observe the current laws of your country for the purchase and use of silencers!

HAUSKEN SK156

This is a compact silencer for all calibers from .243 to .375. A slender silencer perfect for all those who would like to use their silencer with open sights. The SK156 is suitable even for magnum calibers. Sound modulation ca. 28 dB*

Item No.	Caliber
231 91 35	.243 - 7 mm
231 91 36	.30
231 91 37	8 mm S
231 91 38	9.3 mm - .375

Other models and configurations upon inquiry

Manufacturer's general technical data:

Outside Ø	Weight	Length	Length past the rifle muzzle	Gewinde
52 mm	322 g	156 mm	156 mm *	18x1

* with thread M17x1: plus 19 mm

HAUSKEN MD45

An ultra-compact silencer for all calibers with a bullet diameter of .17 to .22. Even in the fast varmint caliber .22-250, this is a silencer that gives an astounding performance in sound moderation. Open sights need not be removed for this model. Sound modulation ca. 27 dB*

Item No.	Caliber
231 91 39	.17 - .22

Manufacturer's general technical data:

Outside Ø	Weight	Length	Length past the rifle muzzle	Thread
45 mm	246 g	128 mm	128 mm *	18x1

* with thread M17x1: plus 19 mm

THREAD ADAPTER

Item No.	Type
231 91 41	**Thread adapter ½"-20 UNF**
231 91 42	**Thread adapter ½"-28 UNEF**
231 93 82	**Thread adapter 5/8"-24 UNF**
240 02 83	**Thread adapter 13x1**

Item No.	Type
231 91 43	**Thread adapter 14x1**
231 91 44	**Thread adapter 15x1**
231 91 45	**Thread adapter 16x1**
231 92 90	**Thread adapter 17x1**

DISASSEMBLY TOOL

Item No.	Type
241 08 07	**Disassembly tool for JD224 Lite**
231 91 40	**Disassembly tool for JD184/224**
240 02 84	**Disassembly tool for WD60**

RWS QUICK SLEEVE BY NIGGELOH®

A silencer heats up quickly in rapid fire. The resulting mirage makes target acquisition difficult. The Cordura®-reinforced top panel of the RWS QUICK SLEEVE directs the heat waves off to the side, thereby ensuring a clear view of the target. The high-quality neoprene helps prevent damage to the silencer and reduces noise if it is bumped in the blind or whilst stalking. In addition, it reduces the sound of the report by an additional 3 dB (depending on the silencer).

Item No.	Type	Length	Diameter
240 74 15	**RWS Quick Sleeve for Hausken WD 60**	225 mm	Ø 60 mm
231 78 32	**RWS Quick Sleeve for Hausken JD 224**	225 mm	Ø 50 mm
241 08 06	**RWS Quick Sleeve for Hausken JD 224 Lite**	225 mm	Ø 45 mm
240 74 16	**RWS Quick Sleeve for Hausken JD 184**	185 mm	Ø 50 mm

HAUSKEN products are not yet available in all countries. Please ask your dealer.

SILENCERS

Advantages, cleaning and care

ADVANTAGES

Sound reduction
The powder gases streaming from the muzzle are diverted and braked inside the silencer. This avoids a violent expansion of gas and reduces muzzle blast. The dampening power of a silencer is dependent upon its internal volume and design. The more effectively the gas cloud can be braked, the better the silencer's performance.

Reduced recoil
Besides the sound reduction, the biggest advantage of the silencer is that it reduces recoil. The gases within the silencer stream forward and slam into the silencer's baffles. This counteracts the force of recoil. Muzzle jump is also noticeably reduced.

Improved accuracy
A silencer is hardly anything more than a very well-built, encapsulated muzzle brake. Using a silencer reduces accuracy-robbing turbulence around the bullet.

No muzzle flash
The muzzle flash is contained within the silencer body. This way, there is no annoying blindness from shots taken at twilight or at night.

SUMMARY: You can shoot more accurately, hit more reliably and hunt more ethically with a silencer!

CARE AND CLEANING

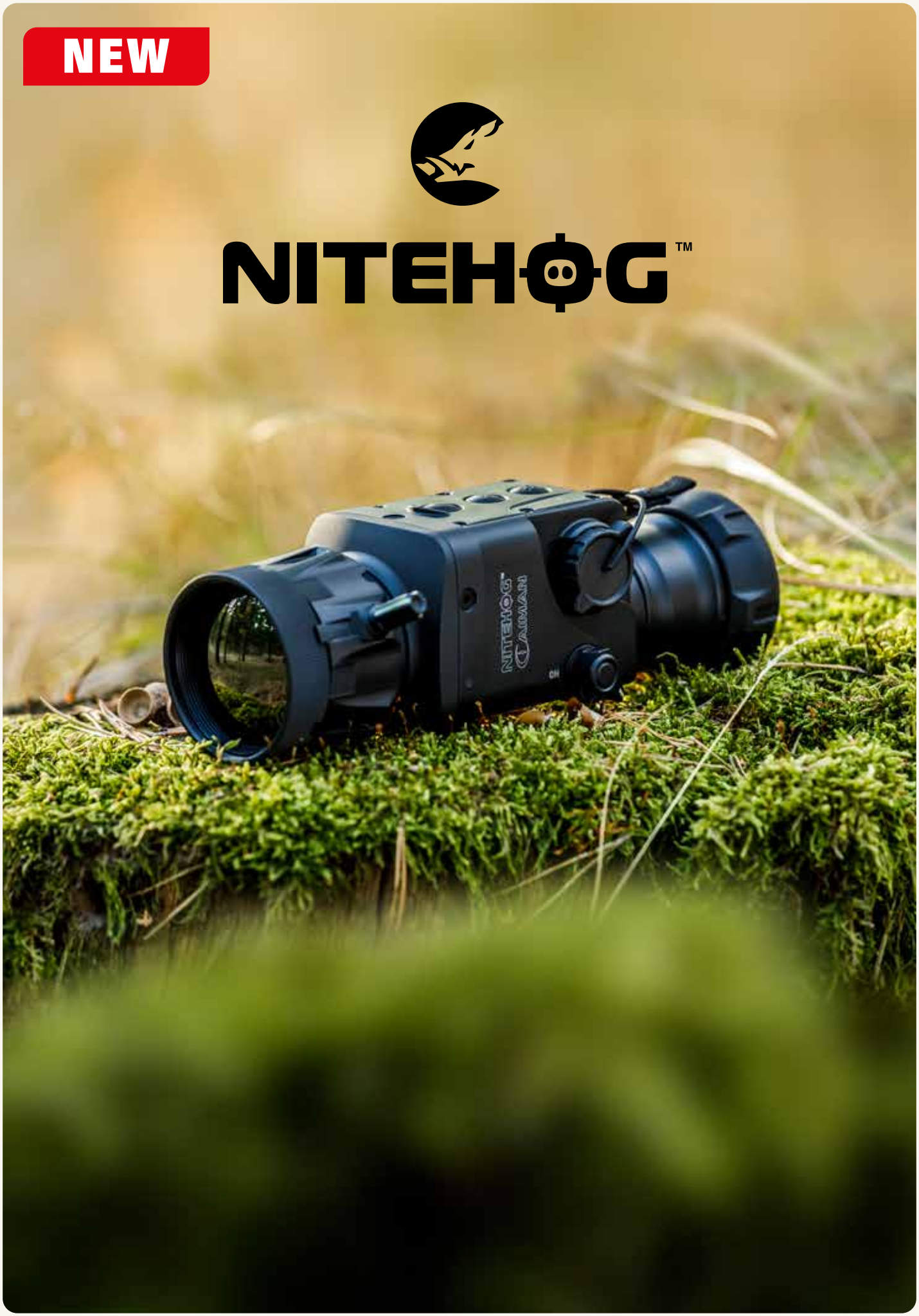
In order to keep your HAUSKEN silencer in top shape, it needs a little care and an occasional cleaning.

The muzzle threads should always be covered with a thin film of heat-proof oil or lubricant. Without this oil film, it is possible that the silencer will 'bake on' to the muzzle threads, in which case it may not be possible to remove it without causing serious damage.

After the hunt, it is important to always remove the silencer from the rifle and let it air out thoroughly. The soot remaining inside the silencer could combine with condensate to create harmful acids. These acids can damage both the rifle and the silencer!

A practical tip:
After every use, lay the silencer on a radiator or some other heat source. The resulting chimney effect promotes quick drying. Alternatively, you can dry the silencer with a hair dryer, but watch out for burns if you use this method.

Cleaning can be carried out by yourself or by your gunsmith. The silencer must be disassembled for cleaning. For this, you will need the HAUSKEN disassembly tool. Disassembly is made easier if the inside of the silencer is sprayed with penetrating oil beforehand. The tube as well as the housing can be cleaned with hot water and a mild detergent. The silencer must be completely dry before reassembly. Before assembly, the gaskets and the threads on the housing must be lubricated with heat-proof grease.


NEW
NITEHOG™

PREMIUM. ACCURATE. RELIABLE.

Close contact with its customers and knowledge from practical hunting experience make it possible for NITEHOG to produce and further develop what the user actually needs. That is the reason for the company's international success. Thanks to its cutting-edge production technologies, NITEHOG is able to integrate all individual system components in a way that ensures outstanding image quality. Only top-grade materials are used. They are what guarantees the devices' long durability, resilience and high level of accuracy. The NITEHOG standard includes the filling of the device housings with nitrogen to prevent the optics from fogging up and the high-strength plastic coating that reliably protects the high-quality germanium front lens from being scratched.

DISCOVER THE INVISIBLE

The NITEHOG quality promise:

- Use-oriented development in the company's own team
- Top-grade materials for utmost quality
- In-house lens production at the manufacturing level
- Production in cutting-edge machinery
- Multilingual, self-explanatory software design
- Highly qualified employees
- Highly precise measurement technology
- In-house test laboratory for climatic and mechanical resilience
- Optimised optics design for electronic image processing

NITEHOG thermal cameras - the special features at a glance:

- Hard-carbon-coated germanium lenses
- Magnesium housing machined from a whole piece
- Nitrogen-filled housing to prevent fogging up
- Ergonomic design
- Adaptive system construction
- Device development, design and production according to AQAP NATO standard 2110

TIR-M35 CHAMELEON

With the best seller, the TIR-M35 Chameleon multifunctional thermal imaging device, you will be able to focus even faster and observe with greater detail. The 17 µm pixel pitch of the VOx microbolometer refines the quality of the colour image and provides outstanding vision in complete darkness and in moist and foggy weather. The nitrogen-filled TIR-M35 Chameleon is CNC machined from a single block of magnesium and equipped with in-house, top-quality germanium lenses.

The elaborate production and inspection of each individual lens guarantees quality and reliability. The TIR-M35 Chameleon can be used as a hand-held monocular with 4x digital zoom and as an attachment*. The optional clamp adapter (see Accessories) makes it possible to quickly and easily mount the device in front of your binoculars, video camera or a camera, for example.

- VOx microbolometer / resolution 336 x 256 / 17 µm pixel pitch
- 35 mm focal length
- Hand-held or mounted in front*
- 1x optical and 4x digital zoom
- Colour display / colour image display
- Stadiametric rangefinder
- Freely selectable image optimisations
- WiFi ready

Item No.	Type
241 06 07	**TIR-M35 Chameleon**

* Please observe the current laws of your country for the use of NITEHOG devices as attachments!

These products are not yet available in all countries. Please ask your dealer.

NEW TIR-M50 CAIMAN X-CORE

The new multifunctional TIR-M50 Caiman X-Core thermal imaging device is the latest high-end solution from NITEHOG. Equipped with the company's own X-Core image processing module and a higher resolution of 640x480 with 17 µm pitch, this means high-quality optics for the user. The housing is machined from the full magnesium block and filled with nitrogen. The device also has 4x digital zoom and a stadiametric rangefinder function. The quality promise is rounded off with a 5-year factory warranty. What is more, the device offers the option of connecting with NITEHOG Video Connect as well. The device is supplied with a rechargeable battery pack as standard for up to 6 hrs. of continuous usage.

- X-Core module
- LYNRED a-Si microbolometer / resolution 640 x 480 / 17 µm pixel pitch
- 50 mm focal length
- Hand-held or mounted in front*
- 1x optical and 4x digital zoom
- Colour display size 800 x 600 / colour image display
- Stadiametric rangefinder
- Freely selectable image optimisations
- Nitrogen-filled / watertight according to IP66
- WiFi ready
- Rechargeable battery pack included in the scope of delivery
- 5-year warranty

Delivery incl. Video Connect

Item No.	Type
241 40 93	**TIR-M50 Caiman X-Core**

NEW TIR-V19 AC PYTHON

NITEHOG presents the new TIR-V19 AC Python thermal imager. This is the first NITEHOG device with an A-Core image processing module developed in-house. The 12 µm pitch together with the 19 mm germanium lens generates a razor-sharp and detailed image. The size of the device is perfect for carrying it in a jacket pocket or on the practical lanyard.

- A-Core module
- LYNRED a-Si microbolometer / resolution 320 x 240 / 12 µm pixel pitch
- 19 mm focal length
- 1.6x optical zoom
- Micro OLED display size 1024 x 768 / colour image display
- Diopter setting +3 / -4
- Nitrogen-filled / watertight according to IP66
- 5-year warranty

Item No.	Type
241 79 38	**TIR-V19 AC PYTHON**

* Please observe the current laws of your country for the use of NITEHOG devices as attachments!

These products are not yet available in all countries. Please ask your dealer.

NEW

TIR-VC VIDEO CONNECT

Experience hunting action up close and share it with the new NITEHOG Video Connect system. This consists of a transmitter unit that is compatible with the devices TIR-M35, TIR-M35 Chameleon, TIR-M50 Caiman, TIR-M50 Caiman X-Core and the devices TIRSK35 and TIR-S60. Power is supplied by the device and may affect the battery life. The receiver is a small portable monitor with a built-in digital video recorder, which records the video images on a micro SD card (not included in the scope of delivery). The reception range on open terrain is approximately 350 m. This solution does not require a mobile phone and does not involve any compatibility problems with their operating systems.

- Frequency: 5.8 GHz
- Transmission power: 600 mW - The transmission power may make a registration with the Federal Network Agency or a similar authority in your country necessary! Please observe the current legal situation in your country!
- Max. range (clear view): approx. 350 m
- Display size: 4.3 inches
- Power supply for the transmitter via the device and for the receiver via the built-in rechargeable battery
- Storage medium: micro SD up to 32 GB (not included in the scope of delivery)
- 12-month warranty

Item No.	Type
241 40 95	**TIR-VC VIDEO CONNECT**

RECHARGEABLE BATTERY PACK M35/M50

The rechargeable battery pack is used instead of the CR 123 rechargeable batteries and supplies your device with power for a period of up to 6 hours (depending on the mode of operation and outdoor temperature). Suitable for: TIR-M35 Chameleon, TIR-M35, TIR-M35-SK, TIR-M50 Caiman, TIR-M50 Caiman X-Core

Item No.	Type
241 06 17	**Rechargeable battery pack M35/M50**

CR 123 RECHARGEABLE BATTERY DOUBLE PACK

2 CR 123 rechargeable batteries for the TIR-M35 and TIR-M35 Chameleon in a practical transport box.

Item No.	Type
241 06 16	**CR 123 Rechargeable battery double pack**

OCULAR ADAPTER INSERT

Ocular insert with 2x magnification, suitable for all NITEHOG products. Available for various adapter diameters.

Item No.	Type
241 06 13	**Ocular adapter insert 62 mm**
241 06 12	**Ocular adapter insert 56 mm**

WIFI MODULE

WiFi adapter. The device can be connected to all NITEHOG thermal imaging devices and enables live image transmission via WiFi onto mobile end devices such as smartphones and tablets. The app is available for download from the App Store and can save videos and photos as well as show the live image.

Item No.	Type
241 06 15	**WiFi module**

USB SYSTEM CABLE

You can use this cable and the matching software (available for download at www.nitehog.eu) to download your still images and change the device settings.

Item No.	Type
241 06 14	**USB System Cable**

VIDEO CABLE

With the video cable, you can transfer the live image from the thermal image cameras to a portable monitor for example, or record it on a recorder. An analogue FBAS signal is outputted.

Item No.	Type
241 07 27	**Video Cable**

RUSAN PHOTO ADAPTER

Photo adapter from Rusan for mounting on the front of thermal image / night-vision devices.

Item No.	Type
241 07 67	Photo Adapter 65 mm
241 06 11	Photo Adapter 62 mm
241 07 66	Photo Adapter 61 mm
241 07 65	Photo Adapter 59 mm
241 07 64	Photo Adapter 58 mm
241 07 63	Photo Adapter 57 mm

Item No.	Type
241 06 10	Photo Adapter 56 mm
241 07 62	Photo Adapter 54 mm
241 07 61	Photo Adapter 48 mm
241 07 60	Photo Adapter 47 mm
241 07 59	Photo Adapter 30 mm

These products are not yet available in all countries.
Please ask your dealer.

all4shooters.com
BE A SHOOTER
ARMS AMMUNITION OPTICS PASSION

all4hunters.com
BE A HUNTER
ARMS AMMUNITION OPTICS PASSION

WELCOME TO THE WORLD OF GECO OPTICS!

Gustav Genschow & Co. (GECO) started selling binoculars under the GECO brand back in the 1930s. Following on from this tradition, GECO today offers binoculars and riflescopes in the highest optical and mechanical quality at a uniquely unbeatable price. They are focused and adapted to the most exacting demands of hunters, sports shooters and nature lovers and can be used anywhere, true to the motto: "**GECO - ALL YOU NEED**".

OPTICS

GECO

GECO offers the ideal introduction to the field of high-quality riflescopes and observation optics. A modern design, the use of selected materials and a level of optical and mechanical quality and performance that is unparalleled in this price class define a new standard. Despite their extremely compact and lightweight form, technical precision coupled with practical suitability for hunting and durability were the priorities during their development. With their focus on what is essential, these products are the perfect companions in any hunting situation.

GECO GOLD

GECO Gold optics stand for the highest levels of quality and performance. State-of-the-art coating technologies combined with the use of special types of glass and other high-quality materials define this portfolio of optical products with their outstanding performance characteristics. Transmission values, fields of view, edge definition and exit pupils compare favourably with premium class optics. Optimum ergonomics and an extremely compact and lightweight design are combined with the unrivalled value for money that GECO is renowned for. GECO Gold products stand for maximum reliability in any hunting situation.

GECO BLACK

GECO Black optics take the extremely high optical quality standard of GECO Gold one step further. They also offer unbeatable value for money that is unparalleled in this class. These products were especially developed for sporting and tactical shooting. High zoom ratios, ballistic solutions, reticles in the 1st image plane and a central tube diameter of up to 34 mm define this class of very compact products. All the optical elements have a lens thread and are supplied with a flip cover as standard.

HD glass for images with maximum brilliance

ED glass for razor-sharp images

Extended field of view for optimum observation

Lightweight, rugged magnesium housing

Eyecups made from highest-quality aluminium

Reticle in the first image plane for tactical shooting

34mm central tube diameter for large adjustment ranges

Tactical turret for fast and accurate bullet drop compensation

Tool-free resetting for ultra-fast locking

Extremely ergonomic thanks to the microbridge

Central focusing with integrated dioptre adjustment makes handling easy

Lightweight construction for optimum handling

Hard-shell carry case for maximum protection during transport

5-year guarantee (warranty on electronic components limited to 24 months)

10-year guarantee (warranty on electronic components limited to 24 months)

GECObright – maximum transmission in even the most adverse lighting conditions

GECOdrop – dirt- and water-repellent, hydrophobic coating for clear sight

GECOdot – minimum target coverage

GECOcontrol – intelligent automatic shutoff for maximum energy efficiency

GECOtrac – height elevation and target turret in one

GECO TR1 – Accurate long-range shooting without reticle adjustments

With integral rangefinder

Diverse measuring options: distance, angle, ballistic range

GECO
Red dot sights

RED DOT 1x20

The ideal companion for driven hunts over difficult terrain. The finely dimmable illuminated dot with a diameter of 2 MOA facilitates quick, intuitive and reliable target acquisition in every situation. The built-in weaver mount means the GECO Red Dot can be attached quickly and easily.

NEW

RED DOT 1x20 GenII

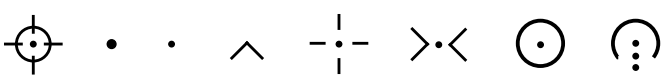
The new, waterproof GECO Red Dot 1x20 Gen II is a reliable companion for driven game hunts in any weather. The sight comes standard with clear flip-up covers so that a clear view can be had at any time. The adjustable 2 MOA red dot, which has 11 settings, helps to define the target quickly – even under difficult lighting. Through the use of modern low-energy technology, battery life can be as long as 30,000 hours! The sight can be quickly and securely mounted with its integral Weaver base. Replacement flip-up-covers available (see table)

OPEN RED DOT SIGHT

The new GECO Open Red Dot Sight is exceptionally compact, lightweight and at the same extremely robust. With its open field of view, it is the optimal companion on driven hunts for targets at short and medium distances with intuitive target acquisition. The fine 2 MOA dot is adjustable to six brightness levels. The specially coated and scratch-resistance glass lens prevents reflections. Replacing batteries is exceedingly user-friendly and can be done on the side compartment even when mounted, using commercially available mounting adapters on all bases.
ATTENTION: Not suitable for use on handguns!

MULTIDOT

The GECO MultiDot is a robust and exceptionally flexible red dot sight. It has the capacity to switch between 8 different reticles (3 or 10 MOA dot, circle dot, etc.) in either green or red without having to zero in again. There are five brightness settings, and the batteries are accessible from the side even when mounted. The integrated quick-release mount allows for fast mounting on Weaver/Picatinny rails.



GECO Red dot sights

Item no.	Product	Reticle	Field of view at 100 m	Central tube Ø	Overall length	Weight approx.
231 92 19	**Red Dot 1x20**	2 MOA Dot	100 m	30 mm	67 mm	130 g
241 07 26	**Red Dot 1x20 GenII**	2 MOA Dot	100 m	20 mm	68 mm *	112 g
241 33 18	**Replacement flip-up-covers for Red Dot 1x20 GenII**					
240 71 55	**Open Red Dot Sight**	2 MOA	100 m	19x23 mm	46 mm	30 g
240 71 56	**MultiDot**	Changing reticle	100 m	33x24 mm	95 mm	260 g

* with flip-up-covers: 82 mm

GECO optics are not yet available in all countries. Please ask your dealer.

GECO
Riflescopes

The wide range of GECO riflescopes offers a riflescope for practically every imaginable situation. From tracking to hunting from a blind to driven hunts, from daytime to dusk and even nighttime hunting, but also for long range shots and sport shooting.

The range includes riflescopes with 3x, 4x and 5x zoom, leaving little to be desired.

The 3x zoom riflescopes catch the eye with their slender and extremely compact length and low weight. The imperial optics from this range are excellently suited to be mounted on older mounts or weapons with a narrow build. The excellent optical quality is reflected in the very good fields of view and high transmission values. Large lens diameters ensure sufficient light reserves that extend into twilight. The illuminated GECOdot with automatic shut-off and the integrated GECOtrac target turret are unique features in this class.

3-9x42/40i

This all-rounder has proven its worth for decades and is extremely compact and easy to handle, making it ideal for stalking or sitting game. Thanks to its illuminated reticle and greater lens diameter, it is also suitable for twilight hunting.

fig. 3-9x40i

4-12x42/50i

Higher magnification renders precise shooting over long distances. Thanks to the large lens diameter and illuminated reticle, it is also ideal in adverse lighting conditions.

fig. 4-12x50i

The 4x zoom riflescopes have a central tube diameter of 30 mm and stand out thanks to their optical performance specs for transmission, field of view and exit pupil. With the 3-12x56 and the 6-24x50, the range includes two absolute classics with outstanding performance specs for this price class.

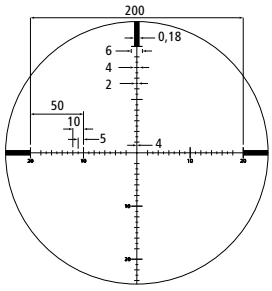
3-12x56/56i

The classic all-rounder for hunting from a blind and nighttime hunting. Its 56 mm diameter lens, high transmission, and illuminated reticle offer increased reliability, even in extremely unfavourable lighting.

fig. 3-12x56i

6-24x50

The specialist for long distances. Its high magnification is perfect for accurate shooting at long distances. This is supported by the GECO TR1 reticle and the high optical performance allows the recognition of even the finest details at long distances.



Reticle GECO TR1

GECO
Riflescopes

The 5x zoom riflescopes with a central tube diameter of 30 mm stand out for their optimized zoom factor and thus increased flexibility and versatility without sacrificing their high optical performance.

1-5x24i

The perfect companion for driven hunts. Its large field of view ensures the shooter always has the ideal overview and provides increased safety. The 5x zoom enables fast shooting even at long distances.

3.5-18x56i

This riflescope ensures you are always ready for near or far shots. Even in unfavourable lighting, thanks to its large lens diameter and the illuminated reticle. The focus here is on its flexibility and high optical performance.

GECO Riflescopes

Item no.	Product	Reticle	Field of view at 100 m	Central tube Ø	Overall length	Weight approx.
240 37 11	**3-9x42**	Plex	15.0 – 5.5 m	1"	300 mm	400 g
240 37 13	**3-9x40i**	4	12.0 – 4.0 m	1"	317 mm	428 g
240 37 14	**4-12x42**	Plex	11.0 – 4.5 m	1"	310 mm	390 g
240 37 15	**4-12x50i**	4	9.0 – 3.0 m	1"	336 mm	516 g
240 64 72	**3-12x56**	4	12.5 – 3.0 m	30 mm	340 mm	674 g
240 64 75	**3-12x56i**	4	12.5 – 3.0 m	30 mm	340 mm	674 g
240 64 71	**6-24x50**	TR1	5.6 – 1.5 m	30 mm	362 mm	750 g
240 64 76	**1-5x24i**	4	37.0 – 6.0 m	30 mm	260 mm	550 g
240 64 77	**3.5-18x56i**	4	11.8 – 2.2 m	30 mm	335 mm	850 g

GECO optics are not yet available in all countries. Please ask your dealer.

GECO
Binoculars

The binoculars in the GECO range offer the perfect introduction to high-quality observation optics with unbeatable value for money. The slimline, ergonomic design has been combined with high-quality materials. The entire housing is made of magnesium. Thanks to ED glass, multi-layer coating and adjusted optical calculation, they offer wide fields of view, high edge definition and excellent transmission values as well as a shortened close focus. Their ruggedness, low weight and optical performance make them unrivalled representatives of their type.

All models come with a tripod mount, carry strap and hard case.

8x32/10x32

The perfect companion for virtually every observation scenario. Extreme compactness and low weight make for optimum handling. Their optics deliver razor-sharp images in good ambient light.

fig. 8x32

8x42/10x42

Thanks to a wide field of view, they offer an excellent overall view coupled with a steady image. A greater lens diameter, ED glass and GECObright multi-layer coating create sufficient light reserves for use into advanced twilight.

fig. 10x42

8x56/10x56

Both powerful and effective. The compact and lightweight design combined with the very large fields of view and the large exit pupil make spotting a relaxed activity. The high transmission values create bright and high-contrast images for hunting until nearly nightfall.

fig. 8x56

GECO Binoculars

Item no.	Product	Color	Exit pupil	Field of view at 1000 m	Close focus	Overall length	Weight approx.	
241 42 55	**8x32**	green	4	136 m	2	125 mm	500 g	NEW
240 37 24	**8x32**	black	4	136 m	2	125 mm	500 g	
241 42 56	**10x32**	green	3.28	105 m	2.5	125 mm	500 g	NEW
240 37 25	**10x32**	black	3.28	105 m	2.5	125 mm	500 g	
241 42 57	**8x42**	green	5.25	142 m	2	145 mm	670 g	NEW
240 37 26	**8x42**	black	5.25	142 m	2	145 mm	670 g	
241 42 58	**10x42**	green	4.2	113 m	2.5	145 mm	670 g	NEW
240 37 27	**10x42**	black	4.2	113 m	2.5	145 mm	670 g	
241 42 59	**8x56**	green	7	129 m	2.3	192 mm	1200 g	NEW
240 37 28	**8x56**	black	7	129 m	2.3	192 mm	1200 g	
241 42 60	**10x56**	green	5.6	114 m	2.5	192 mm	1200 g	NEW
240 37 29	**10x56**	black	5.6	114 m	2.5	192 mm	1200 g	

GECO GOLD
Riflescopes

The GECO Gold riflescopes combine high zoom ratios with outstanding optical performance. They offer flexible use in virtually any hunting situation and in the most adverse lighting conditions, delivering excellent performance in terms of transmission, field of view and exit pupil. This is made possible by the use of state-of-the-art multi-layer coatings and optical calculations. Apart from the fine GECOdot illuminated dot, emphasis was placed on a large adjustment range and tool-free resetting together with an integrated GECOtrac target turret.

The extremely compact form is made from high-quality materials and includes an integrated lens thread. The high level of quality and reliability is reflected in the 10-year guarantee.

1-6x24i

The specialist for drive or big game hunting. Its wide field of view ensures fast and reliable target acquisition. The 6x zoom also makes precise, medium-distance shooting possible.

2.5-15x50i/56i

The all-rounder for virtually any hunting scenario. Thanks to parallax adjustment, the zoom ratio and field of view enable use ranging from drive hunting to precise distance shooting. A large lens diameter offers maximum accuracy in even the most adverse conditions.

fig. 2.5-15x50i

1-8x24i

This all-rounder covers the full range: from drive hunting to long-distance shooting. Maximum zoom ratio, wide field of view, fine illuminated dot and large exit pupil offer maximum accuracy.

GECO GOLD Riflescopes

Item no.	Product	Reticle	Field of view at 100 m	Central tube Ø	Overall length	Weight approx.
240 37 18	**1-6x24i**	4	38.0 – 6.0 m	30 mm	269 mm	530 g
240 37 19	**2.5-15x50i**	4	14.4 – 2.5 m	30 mm	381 mm	700 g
240 37 20	**2.5-15x56i**	4	15.0 – 2.5 m	30 mm	381 mm	780 g
240 37 21	**1-8x24i**	4	36.0 – 4.5 m	30 mm	273 mm	610 g

GECO optics are not yet available in all countries. Please ask your dealer.

GECO GOLD
Binoculars

The binoculars in the GECO Gold line are members of the absolute premium class. HD glass optical design combined with state-of-the-art multi-layer coating results in outstanding optical performance in terms of transmission, edge definition, close focus and colour reproduction. Thanks to the GECOdrop hydrophobic coating, all optics are dirt- and water-repellent. The innovative microbridge results in a high-quality and particularly ergonomic design. A magnesium housing, a coated magnesium bridge and high-quality aluminium adjustable eyecups render maximum ruggedness with minimum weight. Dioptre adjustment has been integrated into the central focusing wheel. If you are looking for uncompromising quality in binoculars with very good value for money, look no further.

All models come with a tripod mount, carry strap, hard case and a 10-year guarantee.

8x42/10x42

The products combine compactness and low weight with top-quality optical performance. They are the optimum companion for sitting, drive or stalking hunts. Thanks to the extremely short close focus, they ensure unforgettable perceptions of nature at even the shortest of distances.

fig. 8x42

8.5x50/10x50/12.5x50

Thanks to a good field of view, large exit pupil and HD glass, they deliver extremely bright, sharp and high-contrast images even in the most adverse lighting conditions. This enables observation and response over large distances, resulting in an impressive and unforgettable visual experience.

fig. 8.5x50

GECO GOLD Binoculars

Item no.	Product	Exit pupil	Field of view at 1000 m	Close focus	Overall length	Weight approx.
240 37 30	**8x42**	5.25	125 m	2	156 mm	830 g
240 37 31	**10x42**	4.2	112 m	2	156 mm	840 g
240 37 32	**8.5x50**	5.9	105 m	3	175 mm	940 g
240 37 33	**10x50**	5	103 m	3	175 mm	960 g
240 37 34	**12.5x50**	4	95 m	3	175 mm	965 g

NEW

GECO
Binocular RF

The GECO RF stands out not only because of its outstanding optics, but also due to its precise and reliable built-in rangefinder and its rock-solid ballistics. The magnesium housing and the high-grade aluminum eye cups make this binocular very robust, and therefore a natural companion for nature lovers. The GECO 10x50 RF unites top-grade optics with first-class laser technology at an attractive price.

The GECO 10x50 RF comes already equipped with a carry strap and a hard case.

10x50 RF

The GECO 10x50 RF pairs a magnesium housing with a robust and shock-absorbing rubber armor so that it can offer an optimal protection for sensitive optical and electronic elements as well as moving parts. With the use of high-quality HD optics in combination with cutting edge multiple lens coatings, top performance in light transmission, field of view, edge sharpness and color fidelity are achieved. The distance to all objects from 10 to 1600 meters away can be simply and reliably determined at the touch of a button. In addition, the GECO RF can measure both angle of elevation (and corrected distance using the integrated ballistics calculator) and temperature.

GECO Binocular RF

Item no.	Product	Color	Exit pupil	Field of view at 1000 m	Close focus	Overall length	Max. width	Measuring range	Weight approx.
241 42 61	**10x50 RF**	green	5	110 m	3	160 mm	130 mm	10 m - 1600 m	1000 g
240 64 79	**10x50 RF**	black	5	110 m	3	160 mm	130 mm	10 m – 1600 m	1000 g

GECO BLACK
Riflescopes

This class includes an 8x zoom with a 34 mm tube and a 6x zoom with a 30 mm tube. The GECO Black line mirrors the outstanding optical performance specs of the GECO GOLD line, but was developed specifically for tactical and dynamic shooting. This includes high adjustment travel, the illuminated reticle in the first focal plane, the integrated target turret, as well as the included flip cover.

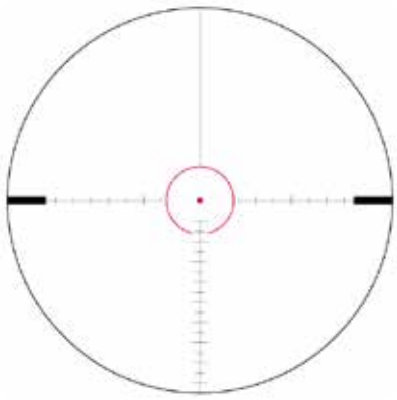
You can be sure of high quality and reliability with our 10-year guarantee.

1-8x24i (34 MM)

The classical representative of a tactical riflescope in a military-style design. Thanks to its horseshoe reticle, intuitively fast shots at close distance can be combined with precise shooting over greater ranges. 1st image plane, 34 mm central tube and lockable target turret leave nothing to be desired.

1-6x24i (30 MM)

Compared to its bigger brother, the 1-8x24i, the 1-6x24i has a central tube diameter of 30 mm and is therefore significantly more compact. With its field of view measuring 38 m and a horseshoe reticle in the first focal plane, this riflescope is perfectly designed for dynamic shooting.



Reticle Horseshoe

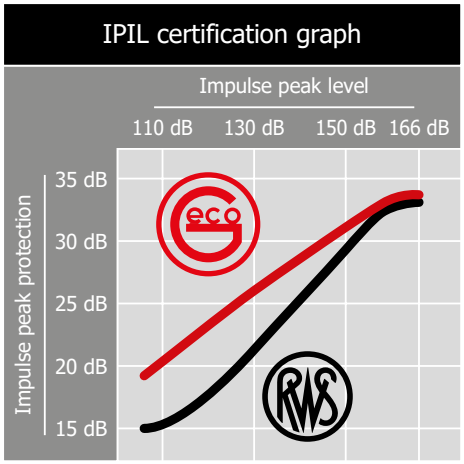
GECO BLACK Riflescopes

Item no.	Product	Reticle	Field of view at 100 m	Central tube Ø	Overall length	Weight approx.
240 37 22	1-8x24i	Horseshoe	35.0 – 4.4 m	34 mm	273 mm	770 g
240 37 23	1-6x24i	Horseshoe	38.0 - 6.3 m	30 mm	269 mm	550 g

GECO optics are not yet available in all countries. Please ask your dealer.

NEW IN-EAR IMPULSE HEARING PROTECTION

The new in-ear impulse hearing protection from RWS and GECO offers excellent noise suppression performance in a reusable high-end product. The patented impulse-filtering technology is certified for impulse noises of up to 166 dB and provides damping of up to at most 33 dB. As soon as there are no impulse noises, the earplugs muffle sound only minimally, making it possible to hear ambient noises.



The features of RWS hearing protection at a glance:

- Harmful impulse noises reduced by up to at most 33 dB
- Permanent damping of 15 dB* while talking or during no-shoot times (*damping under a CE certification condition)
- Comes with aluminium transport/storage case
- No batteries required, no electronics
- Delivered with 2 sets of ear moulds (sizes M and L)

Sound Reduction	■■■□□□
Speech Clarity	■■■■■□
Situational Awareness	■■■■■■
Peak Sound Reduction	■■■■■■

Item No.	Type
241 07 34	**RWS In-Ear Impulse Hearing Protection**

The features of GECO hearing protection at a glance:

- Harmful impulse noises reduced by up to at most 33 dB
- Permanent damping of 19 dB (SNR) while talking or during no-shoot times
- CE-certification
- Comes with aluminium transport/storage case
- No batteries required, no electronics
- Delivered with 2 sets of ear moulds (sizes M and L)

Sound Reduction	■■■■□□
Speech Clarity	■■■■□□
Situational Awareness	■■■■■□
Peak Sound Reduction	■■■■■■

Item No.	Type
241 07 33	**GECO In-Ear Impulse Hearing Protection**

RWS QUICKSHARP KNIFE SHARPENER

The combination of two time-tested sharpening systems resharpens even heavily used blades. Simply place the sharpener on a level, firm surface and – for basic sharpening – pass the knife through the carbide shears until the desired result has been obtained. For fine sharpening, simply turn over the QuickSharp and repeat the process on the ceramic side.

Overview of quality features:

- Combination product with two time-tested sharpening systems
- CARBIDE for rough sharpening
- CERAMIC for fine sharpening
- Small, mobile and practical for on the go
- Slip-resistant base
- Contoured holding surfaces
- Easy to use

Item No.	Type
231 57 32	**QuickSharp display with 8 knife sharpeners**

RWS HAND TOWEL

Your practical companion at the shooting range! With the RWS READY FOR SUCCESS hand towel, your hand and equipment will remain clean at all times. The hand towel can be attached to a sports bag or hung up on a hook via a small metal grommet. Size: approx. 30 x 50 cm; material: 100% cotton

Item No.	Type
240 23 08	**RWS Hand Towel**

RWS QUICKSHARP COMPACT

The companion to the popular QuickSharp knife sharpener in a handy pocket size. With carbide and ceramic shears and a fold-out sharpening steel tool. The new QuickSharp Compact is much smaller than the regular QuickSharp knife sharpener and is therefore even more practical when on the go.

Item No.	Type
240 71 77	**QuickSharp Compact display with 12 knife sharpeners**

ROTTWEIL THERMOS FLASK

The perfect gift for the avid hunter! This originale thermos flask comes in the design of the legendary Rottweil Waidmannsheil shotgun cartridge. Thanks to its high-quality stainless steel the flask offers excellent insulating properties. The top can be unscrewed and used as a drinking cup.

- Originale thermos flask in the form of the legendary Waidmannsheil shotgun cartridge
- Excellent insulating properties thanks to high-quality stainless steel
- With integrated drinking cup and quick-stop cap for easy pouring
- Capacity: 750 ml
- Material: stainless steel

Item No.	Type
231 92 32	**Rottweil thermos flask**

RWS RIFLE SLING

NEW

The new RWS rifle sling offers quality for the highest demands. The softly cushioned, wide shoulder support provides top carrying comfort and a non-slip fit at the same time.
The quick-release fasteners on both sides, which allow for quick and easy opening of the sling, are particularly practical. Thanks to careful processing using modern materials, the rifle sling is easy and comfortable to carry. The sliding buckle makes individual length adjustment possible.

Item No.	Type	Color
241 40 18	**RWS RIFLE SLING Leather/Loden**	brown
241 40 19	**RWS RIFLE SLING Neoprene**	black
241 40 20	**RWS RIFLE SLING Neoprene**	brown

RWS RUCKSACK RIFLE SLING

NEW

The extremely robust RWS rucksack rifle sling combines the high level of carrying comfort of neoprene with quick functionality. The shoulder area made of wide, ergonomically adjusted neoprene sections ensures it is comfortable to carry. The straps in the lower area allow for extremely flexible and individual adjustment of the strap lengths, making it possible to even carry the firearm over a rucksack. The time-tested plug connections on both sides in the middle of the strap allow the strap to be opened in an instant to quickly grab the rifle.

Item No.	Type	Color
241 40 21	**RWS Rucksack Rifle Sling Neoprene**	brown

RWS CARTRIDGE CASE

NEW

The new RWS cartridge case scores points with its attractive design combined with a high degree of functionality. The material mix of robust leather and soft, durable loden cloth makes it an ideal, noiseless companion while hunting. The wide leather loop on the back ensures that it will be held securely on every belt. The elastic loops sewn into the case securely hold RWS rifle cartridge inlays (5 cartridges). The new RWS cartridge case is available in three different sizes, which optimally match the different RWS rifle cartridge inlay sizes.

Item No.	Type
241 40 22	**RWS Cartridge Case, small**
241 40 23	**RWS Cartridge Case, medium**
241 40 24	**RWS Cartridge Case, large**

Type	Suitable for the following calibers
SMALL	.222 REM | .223 REM | .243 WIN | .308 WIN | 5.6X50 MAG | 5.6X50 R MAG | 5.6X52 R | 5.6X57
MEDIUM	.270 WIN | .280 REM | .30 R BLASER | .300 WIN MAG | .30-06 | .375 H&H MAG | 6.5X55 | 6.5X57 | 6.5X57 R 6.5X65 | 6.5X65 R | 6.5X68 | 7.5X55 | 7MM REM MAG | 7X57 | 7X57 R | 7X64 | 7X65 R | 8X57 JRS | 8X57 JS | 8X68 S 8X75 RS | 9.3X62 | 9.3X64 | 9.3X74 R
LAGE	.270 WSM | .300 WSM | .338 LM | 10.3X60 R | 10.3X68 MAG

SHOOTING CAPS

RWS Cap for hunting and leisure wear
Camouflage cap with subdued RWS logo embroidered in 3-D. Adjustable fit. Outer material 100% cotton; brown sections are coated/waxed

RWS Hunting Cap for driven game hunts
Blaze orange camouflage cap with subdued RWS logo embroidered in 3-D. Adjustable fit. Outer material: Camouflage 100% polyester, black 100% cotton

RWS Classic Cap
in black with the RWS logo in rich 3-D embroidery on the crown and the RWS motto woven into the sandwich brim, adjustable for head size. Outer material: 100% cotton

Rottweil Cap
Classic 8-panel cap with an elaborately embossed visor, a high-quality 3D Rottweil logo in front and a finely embroidered slogan "CARTRIDGE PIONEER SINCE 1906" on the back above the closure opening; narrow reflector band all around; infinitely variable, width adjustable with Velcro flaps. 6 stitched ventilation holes. Material: 100% cotton.

Item No.	Type	Colour
231 62 95	**RWS-Cap**	Camouflage/brown
240 52 73	**RWS-Cap**	Blaze orange camouflage/black
231 86 72	**RWS-Cap**	Black
231 66 73	**Rottweil Cap**	Black

RWS RIFLE CARTRIDGE BOARD

Ideal for instructional purposes

This high-quality shadow box contains only original components from RWS. For safety purposes the cases are without power and the primers have no priming compound. The acrylic glass front is detachable, and all components can be removed for study.
The cartridge board is ideal for instructional purposes. The back of the board contains information concerning the construction and properties of the various RWS special-purpose bullets and cartridge cases.

Item No.	Size	Weight
220 77 96	ca. 45 cm x 35 cm	ca. 3 kg

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DE – Achtung – Gefahr durch Feuer oder Splitter, Spreng- und Wurfstücke. – Von Hitze, heißen Oberflächen, Funken, offenen Flammen sowie anderen Zündquellen fernhalten. Nicht rauchen. EN – Warning – Fire or projection hazard. – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. BG – Внимание – Опасност от пожар или разпръскване. – Да се пази от топлина, нагорещени повърхности, искри, открит пламък, и други източници на запалване. Тютюнопушенето забранено. ES – Atención – Peligro de incendio o de proyección. – Mantener alejado del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. No fumar. CS – Varování – Nebezpečí požáru nebo zasažení částicemi. – Chraňte před teplem, horkými povrchy, jiskrami, otevřeným ohněm a jinými zdroji zapálení. Zákaz kouření. DA – Advarsel – Fare for brand eller udslyngning af fragmenter. – Holdes væk fra varme, varme overflader, gnister, åben ild og andre antændelseskilder. Rygning forbudt. ET – Hoiatus – Süttimis- või laialipaiskumisoht. – Hoida eemal soojusallikast, kuumadest pindadest, sädemetest, leekidest ja muudest süüteallikatest. Mitte suitsetada. EL – Προσοχή – Κίνδυνος πυρκαγιάς ή εκτόξευσης. – Μακριά από θερμότητα, θερμές επιφάνειες, σπινθήρες, γυμνές φλόγες και άλλες πηγές ανάφλεξης. Μην καπνίζετε. FR – Attention – Danger d'incendie ou de projection. – Tenir à l'écart de la chaleur, des surfaces chaudes, des étincelles, des flammes nues et de toute autre source d'inflammation. Ne pas fumer. IT – Attenzione – Pericolo di incendio o di proiezione. – Tenere lontano da fonti di calore, superfici calde, scintille, fiamme libere o altre fonti di accensione. Non fumare. LV – Uzmanību – Uguns vai izmetes bīstamība. – Sargāt no karstuma, karstām virsmām, dzirkstelēm, atklātas uguns un citiem aizdegšanās avotiem. Nesmēķēt. LT – Atsargiai – Gaisro arba išsvaidymo pavojus. – Laikyti atokiau nuo šilumos šaltinių, karštų paviršių, žiežirbų, atviros liepsnos arba kitų degimo šaltinių. Nerūkyti. HU – Figyelem – Tűz vagy kivetés veszélye. – Hőtől, forró felületektől, szikrától, nyílt lángtól és más gyújtóforrástól távol tartandó. Tilos a dohányzás. NL – Waarschuwing – Gevaar voor brand of scherfwerking. – Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken. PL – Uwaga – Zagrożenie pożarem lub rozrzutem. – Przechowywać z dala od źródeł ciepła, gorących powierzchni, źródeł iskrzenia, otwartego ognia i innych źródeł zaplonu. Nie palić. PT – Atenção – Perigo de incêndio ou projecções. – Manter afastado do calor, superfícies quentes, faísca, chama aberta e outras fontes de ignição. Não fumar. RO – Atenţie – Pericol de incendiu sau de proiectare. – A se păstra departe de surse de căldură, suprafeţe fierbinţi, scântei, flăcări şi alte surse de aprindere. Fumatul interzis. SK – Pozor – Nebezpečenstvo požiaru alebo rozletenia úlomkov. – Uchovávajte mimo dosahu tepla, horúcich povrchov, iskier, otvoreného ohňa a iných zdrojov zapálenia. Nefajčite. SL – Pozor – Nevarnost za nastanek požara ali drobcev. – Hraniti ločeno od vročine, vročih površin, isker, odprtega ognja in drugih virov vžiga. Kajenje prepovedano. FI – Varoitus – Palo- tai sirpalevaara. – Suojaa lämmöltä, kuumilta pinnoilta, kipinöiltä, avotulelta ja muilta sytytyslähteiltä. Tupakointi kielletty. SV – Varning – Fara för brand eller splitter och kaststycken. – Får inte utsättas för värme, heta ytor, gnistor, öppen låga eller andra antändningskällor. Rökning förbjuden. CN – 警告 – 起火或迸射危险。 – 远离热源/火花/明火/热表面。禁止吸烟。 JP – 警告 – 火災又は飛散危険性 – 熱/火花/裸火/高温のもののような着火源から遠ざけること。 - 禁煙。 KR – 주의 – 화재 또는 발사 위험. – 열·스파크·화염·고열로부터 멀리하시오 - 금연. HR – Upozorenje – Eksplozivno; opasnost od vatre ili raspršavanja. – Čuvati odvojeno od topline/iskre/otvorenog plamena/vrućih površina. – Ne pušiti. NO – Advarsel – Fare for brann eller utkast av fragmenter. – Holdes vekk fra varme, varme overflater, gnister, åpen ild og andre antenningskilder. Røyking forbudt. RU – Внимание – Опасность пожара или разбрасывания. – Беречь от тепла/искр/открытого огня/горячих поверхностей. – Не курить. ARAB – تحذير – خطر الحريق أو الانتثار – يحفظ بعيداً عن مصادر الاشتعال من قبيل الحرارة/الشرر/اللهب المكشوف/السطوح الساخنة. TR – Dikkat – Yangın veya yansıtım zararı. – Isıdan/kıvılcımdan/alevden/sıcak yüzeylerden uzak tutun. – Sigara içilmez. TH – คำเตือน – อันตรายจากไฟไหม้หรือสะเก็ดระเบิด – เก็บให้ห่างจากความร้อน- พื้นผิวที่ร้อน / เปลวไฟ /ประกายไฟ/ ห้ามสูบบุหรี่

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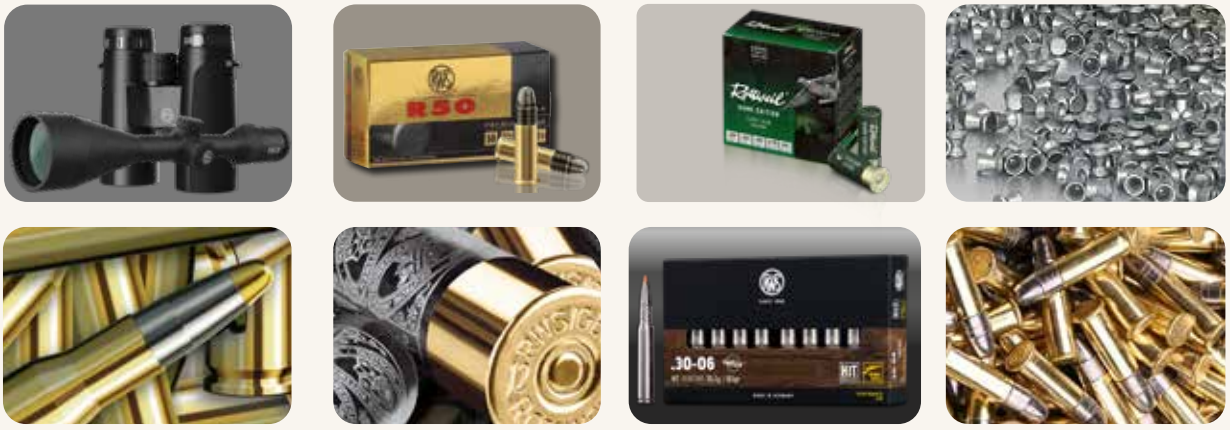

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