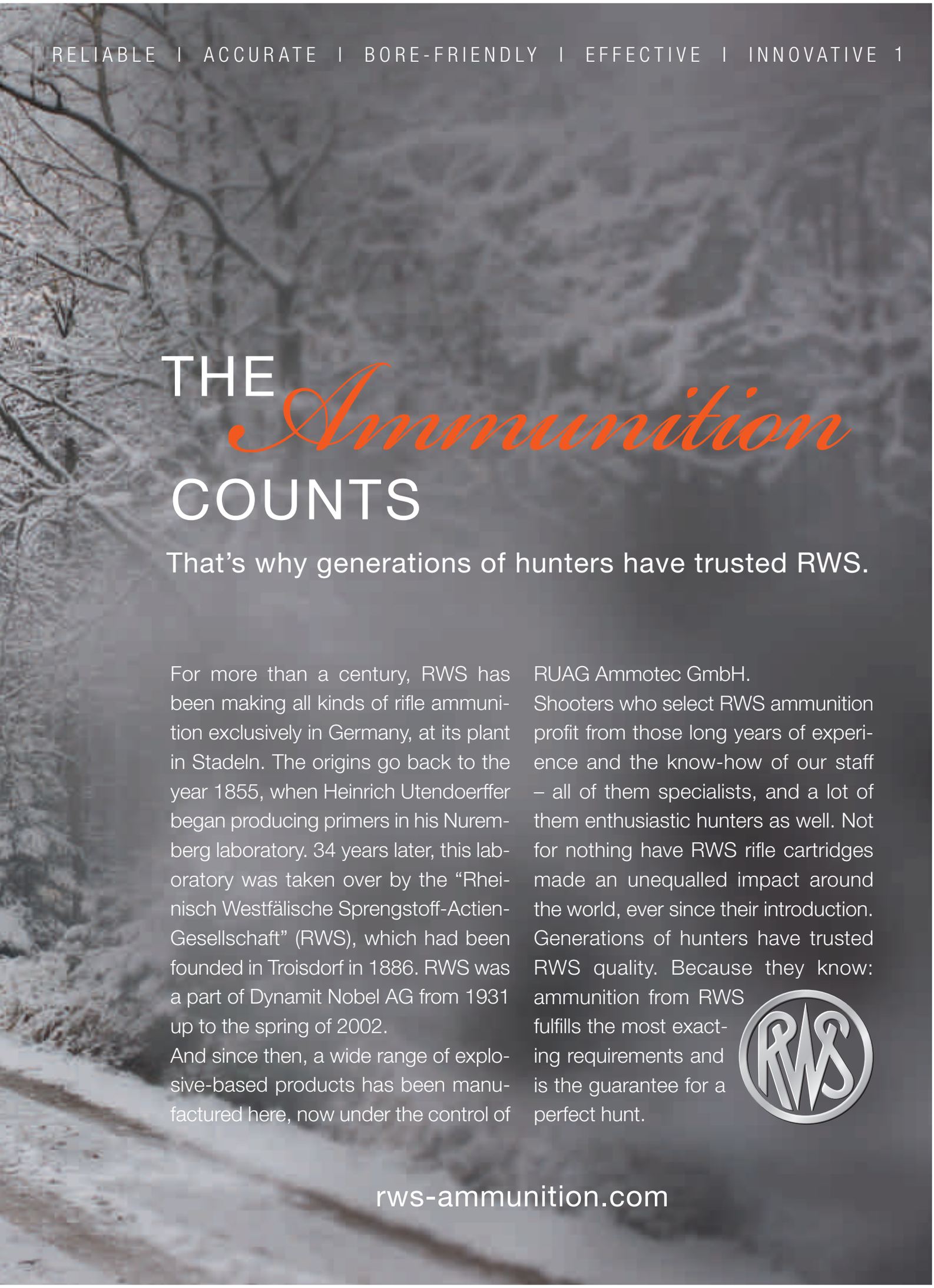


THE *Ammunition* COUNTS

That's why generations of hunters have trusted RWS.

For more than a century, RWS has been making all kinds of rifle ammunition exclusively in Germany, at its plant in Stadeln. The origins go back to the year 1855, when Heinrich Utendoerffer began producing primers in his Nuremberg laboratory. 34 years later, this laboratory was taken over by the "Rheinisch Westfälische Sprengstoff-Actien-Gesellschaft" (RWS), which had been founded in Troisdorf in 1886. RWS was a part of Dynamit Nobel AG from 1931 up to the spring of 2002.
And since then, a wide range of explosive-based products has been manufactured here, now under the control of RUAG Ammotec GmbH.
Shooters who select RWS ammunition profit from those long years of experience and the know-how of our staff – all of them specialists, and a lot of them enthusiastic hunters as well. Not for nothing have RWS rifle cartridges made an unequalled impact around the world, ever since their introduction. Generations of hunters have trusted RWS quality. Because they know: ammunition from RWS fulfills the most exacting requirements and is the guarantee for a perfect hunt.

rws-ammunition.com

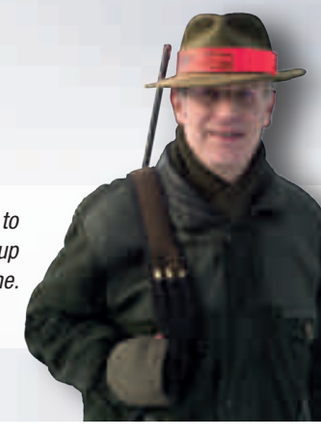
RWS is the only German manufacturer that makes the components for rifle cartridges itself: projectile, case and primer • Made in Germany • More than 100 production steps to the finished rifle cartridge • 14 production steps and 11 quality checks for RWS projectiles • 8 quality checks for RWS cartridge cases • Daily quality assurance by a qualified staff of 35 • Up to 26 manual checks • Laser-supported primer checks • Testing with more than 120 shots during production • 7 final test-shooting series before the production batch is accepted • 2,400 representative weapons available for testing purposes.

REASSURING

... when you know you can rely on the cartridge.

Hunting is never predictable. Imagine you are in the perfect situation to shoot a big running boar, the cartridge misfires or the bullet does not perform as expected; suddenly you are now in a potentially dangerous situation. Choice of ammunition must not be left to chance, it is essential for hunting success.

For RWS reliability is top priority, which is why there are precise quality control checks after every one of the 100 production steps in the manufacture of a rifle cartridge. A cartridge is only approved for sale after it has met all the criteria relevant to safety and performance.
For reliability - RWS.



Norbert Cyron (Head of Quality Management at RWS) *– Here in Quality Assurance we check before, during and after production, to ensure that our rifle cartridges meet all our requirements. These are demanding, and we have to make an effort every day to live up to them. But the result is that our cartridges do their job: they are reliable, have a precise trajectory, and the right effect on the game. A consistently high level of quality is reason enough to set the standards very high, even if that means extra effort.*

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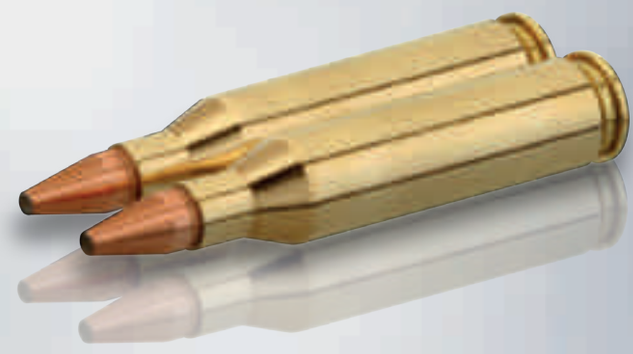
Gunnar Petrikat (Domestic Sales at RWS) *– Precision is a fascinating thing, and I am crazy about it. Especially since I started working for RWS. From then on, it even got worse! OK, so every now and again I'll try a shot with a competing product, but RWS produces the most consistent results. For me, it's part of the pleasure of hunting to know that the shot will be on target.*

OUTSTANDING

... at all distances.

Its quite easy to be satisfied with the accuracy of a rifle cartridge at 100mts but only a long range shot will prove if you can rely on the accuracy of your ammunition at all distances.

A cartridge that can fulfill all the demands of it is a pre-requisite for successful hunting. A precision cartridge must have all the components matched to each other which is why RWS has the production of cases, primers and bullets under its own control.
For RWS accuracy is essential - at all distances.



Every component is checked by in-house firing tests • 35 in-house firing points, including an indoor 500 m range • A daily consumption of up to 10,000 cartridges for testing • Regular checks for gas pressure, chambering capability and accuracy • Precision testing using various barrels and at least 20 shots • Radar-checked trajectory • More than 1,000 special barrels for testing accuracy and gas pressure • Famous gun manufacturers frequently use RWS ammunition to check the accuracy of their products • Trade journalists use RWS ammunition for testing weapons • Numerous European and world championship titles and Olympic victories have been won with RWS ammunition.

As a matter of course, our 67 loads contain powder additives to reduce bore fouling • 5 different special surfaces are used for RWS projectiles • The non-corrosive RWS SINOXID® primer has been used for more than 90 years • RWS has produced the unique Nato-qualified lead and heavy-metal-free SINTOX® primer for more than 25 years • Systematic material analysis of the case and projectile materials, such as spectrum analysis, hardness and grain size analysis, section micrographs of the structure of layered components, tensile strength tests, surface analysis and adherence tests • 4 laboratory tests before acceptance of raw materials • RWS cases are highly esteemed by reloaders.

HARMONY

... when the gun and ammunition are in tune.

A valuable gun is worthless without the correct quality ammunition. Every shot subjects the barrel to a certain amount of stress, this can be minimized by selecting the right ammunition.

RWS uses mercury free primers and grades of powder with additives to help preserve the barrel. We also use special coatings on our bullets to keep wear to a minimum and extend the life of the barrel. A high value match for life long successful hunting.

Karl-Heinz Heinlein (Technical Services at RWS) *– In my long active life as a gunsmith I have looked down a lot of barrels. And it has become clear that the powder additives developed for RWS cartridges are really useful. The bores show considerably reduced fouling – and that significantly improves the accuracy! Not only that, but the special projectile materials and coatings ensure that the barrels have a noticeably longer life.*

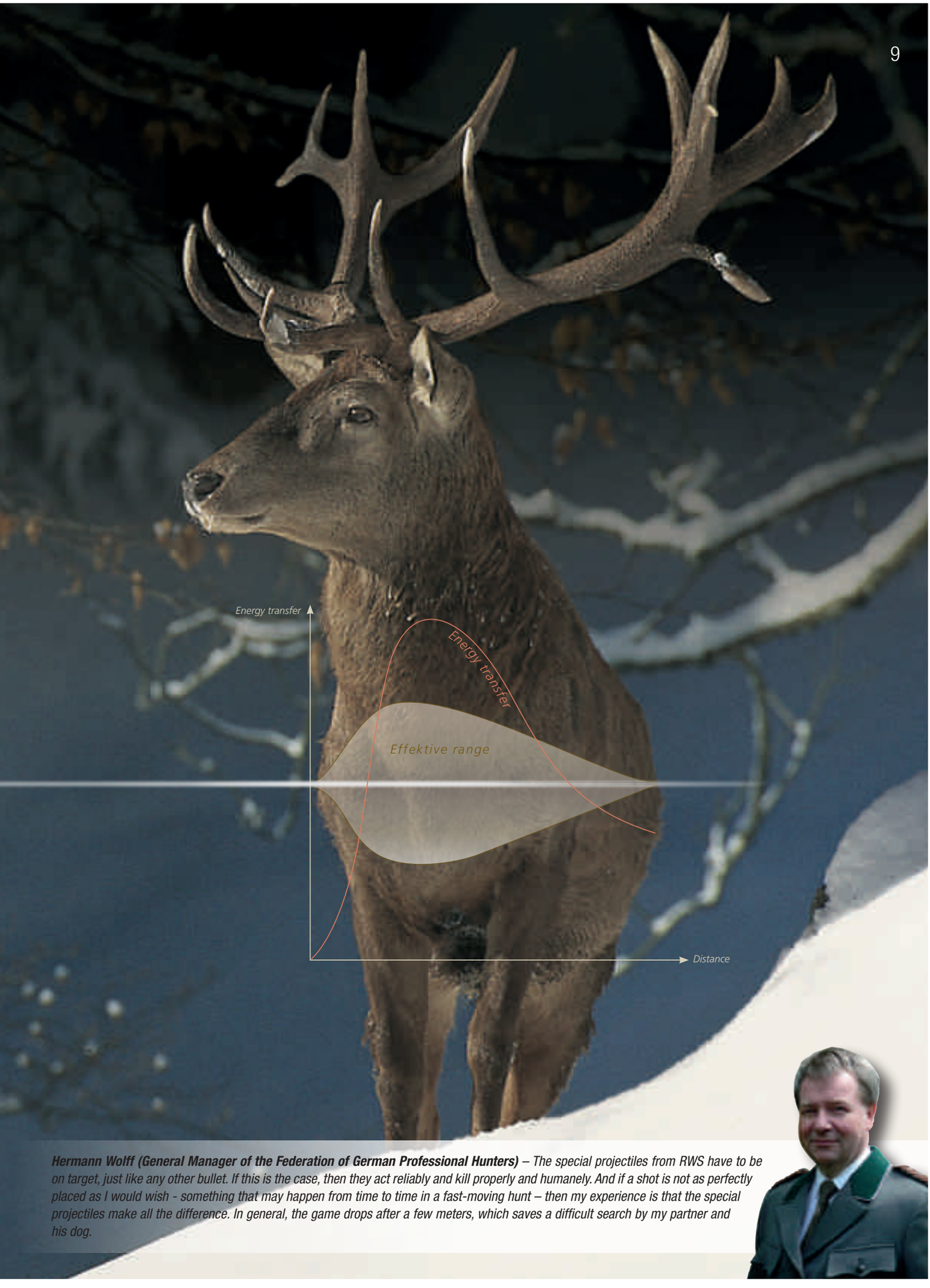
EFFECTIVE

... instant knock down.

The shot is taken and the game drops on the spot thanks to the finely tuned shock effect of the special bullets from RWS.

All RWS special bullets are designed to give a triple shock effect but with minimal meat damage. Initial shock, penetration shock and exit wound are all features of every special bullet from RWS. For all types of game and at all distances these bullets have an outstanding knock down effect.

The RWS range includes more than 115 different projectiles and 40 different calibers • Calibers range from 5.6 mm to 10.7 mm • More than 40 types of powder • Projectile development based on more than 250,000 test firing reports • 2,500 gelatine blocks used for test firing each year • X-ray photographs used since 1950 for the evaluation of proof tests • RWS test hunting ground for in-the-field analysis of the effectiveness of new developments • Newly developed projectiles are tested on well over 1,000 items of game before production is approved • Up to 50 prototypes before a projectile reaches series production • Projectile energy ranges from 460 to 6450 Joules • Projectile weight ranges from 2.6 g to 19.4 g • Velocities range from 590 to 1150 m/s • Close partnership with the Federation of German Professional Hunters



Hermann Wolff (General Manager of the Federation of German Professional Hunters) *– The special projectiles from RWS have to be on target, just like any other bullet. If this is the case, then they act reliably and kill properly and humanely. And if a shot is not as perfectly placed as I would wish - something that may happen from time to time in a fast-moving hunt – then my experience is that the special projectiles make all the difference. In general, the game drops after a few meters, which saves a difficult search by my partner and his dog.*

EXCITING

… when innovation enhances the hunt.

Hunting has a history that goes back for thousands of years and RWS has influenced the last 100 years of that history. The performance of RWS rifle cartridges has opened up present day hunting opportunities and tomorrow they will be out in front of today's technology.

The RWS special projectiles have influenced the nature of hunting ever since they were developed and have always contributed to humane hunting. Numerous RWS experts are already working on tomorrow's innovations – evolution marches on …

Continual development of the H-jacket bullet since its introduction in 1934

RWS special projectiles are continually being optimized • The H-jacket bullet has been redeveloped 7 times since its introduction • In-house developments have produced more than 50 patents in the field of powders and primers • More than 100 patents in the field of projectile and cartridge case development • Proprietary development of the calibers 5.6 x 57 (R), 6.5 x 57 (R), 6.5 x 65 (R), 6. x 68 (R) und 8 x 68S • 6 different types of lead for projectile cores • 4 different materials for projectile jackets • More than 100 primer recipes • More than 95 different cases • Innovation 2008: Super Clean Technology • Innovation 2009: Flash Control Technology • RWS is seen as the most reliable, competent and innovative brand [1] • RWS is the best-known brand of ammunition for hunters [2] • RWS products stand for accuracy, humane hunting, little damage to the meat, and short to zero flight distances [2].

SOURCES: 1) Forum! Market Research, Germany, France: Analysis of emotional customer attachment, 2007 2) GFK–Studie Germany: Brand & Communication Research, 2004

Heinz Rieß (R & D Project Manager at RWS) *– When, as a product manager, I look back on the work of my colleagues and predecessors, I can see again and again that we really have achieved a lot. It is fascinating to study the multitude of calibers, cases and projectiles that have resulted in a 3-figure number of patents. This gives one an impetus, and so we are always ready to take up the challenge to develop innovative products.*

DIE MUNITIO

Precision
PERFECTED

Anyone who goes hunting expects the best performance from his ammunition. But only the best ammunition will guarantee a humane and successful hunt. RWS rifle cartridges meet the most demanding requirements for reliability and performance.

This is ensured by a manufacturing process that puts precision first. Cartridge and components are subject to over 100 production steps; final assembly of the cartridge is only approved after all the components have met and passed these stringent controls.

Here too quality assurance is placed first and the load is a combination of components that have been matched together with great care. Conformity with the parameters specified by proof laws has the highest priority during manufacture as well as the high demands of ballistic performance and accuracy that is the hallmark of all RWS ammunition.

Our staff are another quality factor in this high-quality production process. They are often enthusiastic hunters themselves, and their experience is continually fed back into the manufacture of RWS rifle cartridges.

rws-ammunition.com

PERFECT DOWN TO THE SMALLEST DETAIL

RWS cartridges

The perfect cartridge is distinguished by the high quality of its components and the fact that they have been optimally matched to one another. RWS cartridges fulfill all aspects of these requirements – from the primer through the case and powder to the projectile. This is guaranteed by our high quality method of making up a load.

First, every case receives the primer that has been perfectly matched to it. Then, the groove between primer and case is sealed with a colored lacquer, so that one can distinguish between heavy and light bullets in cartridges of the same caliber. Powder is added in very fine doses for absolutely consistent ballistics, the bullet is precisely seated and crimped to ensure it is firmly seated. Finally the overall cartridge length is checked to ensure maximum accuracy.

Every one of these steps is accompanied by electronic and visual checks. Before the cartridge is packed, the tests are concluded by using a standard chamber as a gauge to make a precise check on the ability of the round to chamber in rifles of the specific caliber.

Cup | First draw | Second draw | Trim | Bump | Form head | Form shoulder, primer cup, flash hole | Turn rim and overall length

A lot more than just an empty case

The demanding production procedure ensures the recognised high quality standard of RWS cartridge cases is maintained. Brass strip for case production is supplied in reels and only accepted after detailed metallurgical analysis in our laboratory. Brass cups are formed from the strip using stamping pressures of 150 tons and then these are drawn through several processes to form the finished case. The developing cases are repeatedly annealed, pickled and washed and this improves the grain structure of the material which helps the cases withstand the gas pressure with an optimum obturation. It also becomes an ‚intelligent' material that expands in response to the increased pressure and then returns to its original condition.

The pickling and washing creates the brilliant appearance of RWS cases. The two press operations that form the cartridge base and the primer pocket make the case very hard in this region. The high hardness level ensures that the primer is seated securely and prevents stretching of the primer pocket at high gas pressures. When the shoulder and neck have been formed, the flash hole is created, the rim is turned, and the case is trimmed to length once more. Then the case mouth is annealed for a last time. Every one of these production steps is followed by a manual size check with various gauges, to ensure the highest level of dimensional accuracy for the cases. The subsequent 100% visual check is mainly an optical matter – at this stage, any cases that are out of tolerance have long been weeded out.

To check their quality, the finished cases are then subjected to an extreme overload: The sample loads are fired in specially prepared proof barrels that create 10 % excess pressure, with head spaces of 0.2 to 0.4 mm, which would normally not be acceptable. Such head spaces are intended to simulate shot-out guns that may well appear in the real-world market. In addition, they are test fired with 30 % excess pressure in proof barrels that have been manufactured to CIP specifications.

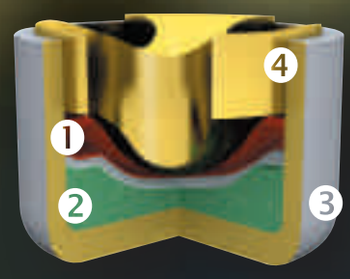
This testing program goes way beyond the legal regulation requirements. Even other manufacturers confirm that we have a no-compromise test methodology that will reliably reveal any potential weaknesses in the cartridge case. After all, rifle cartridge cases must withstand extremely high gas pressures – up to 7,000 bar – and are a kind of life insurance for the shooter. We have developed the most demanding test in the business – so that you are always on the safe side. A cartridge case that passes through our quality control is something special – **it's from RWS.**

Peter Eismann (Hunter and Case Production Foreman at RWS) *– RWS cases mean safety and quality. That may sound like a cliché, but we really work hard at it. It starts in our materials testing laboratory, which conducts a meticulous examination of all the raw materials, and ends with a 100 % visual check by specially trained personnel. The most precise dimensioning and the cleaning of the cases after every production step are a matter of course for us. So we achieve precise dimensions and a brilliant appearance. For me, both of these are very significant factors, and I reckon that this effort is unique in the business.*

RELIABLE IGNITION

The smallest component of the RWS cartridge sets world standards.

1. *The sealing lacquer protects against moisture.*
2. *The primer compound is a cleverly devised composition containing a primary explosive, a sensitizer, an oxidation agent and a reducing agent, and ensures a reliable, continuous combustion of the powder mass.*
3. *The primers have innovative surface coatings that guarantee protection even from extreme climatic conditions.*
4. *The shape and perfect seating of the anvil ensure reliable, fast ignition.*



RWS primers are manufactured in a modern production plant using advance production techniques. Primer production processes include stamping and drawing out the cup, loading the primer compound,drying and pressing and finally fitting the anvil. We use the most modern optoelectronic test equipment to check for any deviations in the assembly and dimensional accuracy. Ignition sensitivity is adjusted so precisely that a deep and central blow from the firing pin will produce 100% ignition.

By 1918 RWS had developed the now world famous mercury free Sinoxid technology based on the substances Trizinate and Tetrazene. Trizinate has excellent storage properties and outstanding ignition characteristics and the addition of Tetrazene adjusts the ignition sensitivity of the primer.

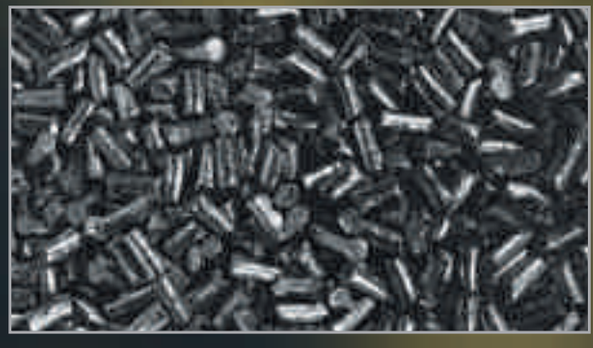
This results in a primer that offers excellent performance and functionality and a high level of handling safety.

The latest primers with Super Clean Technology (Sintox) are insensitive to temperature changes and guarantee perfect performance and reliability even under extreme conditions, from -60 to +60 Celsius. As there is no lead in this primer there is no heavy metal pollution to affect the user or nearby range officers when used in indoor ranges.

Super Clean – tomorrow's world standard.

Dr. Ulrich Bley (Head of the Chemistry Laboratory at RWS) *– primer technology is part of our core competence. The apparently smallest part of the cartridge is a determining factor for the performance of the entire assembly. Good ignition means steady combustion of the powder and thus helps to achieve accuracy and reliability. Here in Fürth we are setting world standards for primer compounds. The SINOXID compound is now the standard for just about every high-quality rifle cartridge. But we also produce the SINTOX primer compound, better known as Super Clean. We think that the future belongs to this primer compound which is free of heavy-metal.*

The secret is in the mix



Powder is not just powder. Propellant powders consist mainly of gelatinized nitrocellose, with special additives: Single-base propellant powder is a powder made basically from pure nitrocellulose. But for ammunition with a relatively low projectile mass but high muzzle velocity – i.e. high-performance ammunition with a flat trajectory – nitrocellulose does not provide enough energy. In this case, double-base or even triple-base powders are used, in which an increased quantity of nitroglycerine or similar substances provides increased energy.

The basic components, the geometry and the surface treatment determine the combustion characteristics of the powder. Rifle cartridges are predominantly loaded with progressive propellant powders. With these powders, the burning rate is initially somewhat slower, but becomes continuously faster as combustion progresses.

RWS uses more than 40 different propellant powders, which we purchase to our specifications from renowned European manufacturers. Before they are used, we carry out laboratory tests to check that the specified parameters are being maintained. RWS is also significantly involved in the development of various powder additives. In this way, we ensure that our rifle cartridges contain special additives that, for instance, act to reduce fouling or muzzle flash (Flash Control).

ABSOLUTELY EFFECTIVE

Projectiles from RWS

RWS is the only manufacturer of rifle cartridges that exclusively uses bullets made in its own production facilities. RWS has over a century's experience in designing and producing its own bullets and this knowledge is at the heart of today's production.

Manufacturing our special bullets involves a lot more than just putting a core into a jacket and to be able to manufacture such a wide range of quality projectiles, RWS has a highly complex production facility. In this plant the most up to date technology ensures the fusion of core and jacket.

Depending on the ballistic requirements the bullet core is drawn from one of six different hardness grades of lead wire; the jacket cup is drawn and trimmed several times and depending on the bullet type one or two core sections are pressed in and specific features such as cannelures are applied. All bullets are then subject to a 100% visual inspection.

Production can involve up to 14 manufacturing steps and 11 quality checks. Rigourous tests during the loading procedure ensures that the highest quality RWS specifications and standards are vigorously maintained. RWS feels it has a duty to maintain the very highest standards of production and performance, its quality aspirations are continually under review.

Friedrich Müller (Test Firing Foreman at RWS) *– For half a century, my family has been looking after the RWS test hunting grounds south-west of Nuremberg. As a result, I have been carrying out field tests of new developments for some considerable time. And have observed time and again that the special bullets have an absolute advantage with respect to the initial shock effect. The game drops quickly, without fleeing very far. The difference is particularly noticeable when guests are in our hunting grounds and try out other products.*

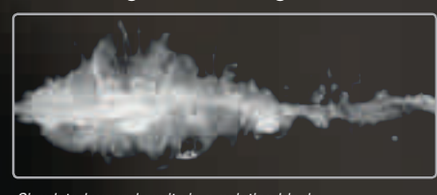
As a rule, we distinguish 3 different types of bullet:

Expansion bullets
Designed to expand when they strike the game but to largely retain their mass. RWS EVO bullet is an excellent example of an expansion bullet; the shock effect is achieved by the controlled deformation while the bullet retains its mass.

Partial fragmentation bullets
These are designed so that they partially disintegrate in a controlled manner, leaving a defined residual portion. DK is an example of this type: It is a partial fragmentation bullet that always retains a residual mass of 60 %. A soft nose bullet, such as the KS or TM types, may be considered to be a partial fragmentation bullet, whereby the retained mass varies slightly according to the bullet velocity and the resistance of the target. The operating principle of this type of projectile is based on the massive destruction of internal organs caused by its controlled fragmentation and the defined retained mass. The suction effect of the retained portion ensures that most of the fragments from the frontal core will be drawn out of the body of the game.

FMJ (full metal jacket) bullets
FMJ bullets are projectiles with a stable form and mass. They do not disintegrate, and there is little deformation, depending on the resistance of the target. The penetration shock and energy transfer are achieved by the delayed tumbling of the bullet within the body of the game.

Our development programme includes testing in the laboratory and field. We conduct tests on gelatine blocks as these have a similar density to muscle tissue and the results indicate how the bullets energy will affect the body of the game. We also carry out extensive field testing to be able to evaluate the performance of the bullet in game. Pages 30-40 show the results of test firing .30 cal. bullets in gelatine. High speed films are also available on line at www.rws-ammunition.com and they show the impressive effects of our range of special bullets.



Simulated wound cavity in a gelatine block

THE RIGHT CHOICE

Understanding calibers

Calibers are designated and expressed in different ways, for example, metric calibers include bore and case length. As an example take 7 x 64, the figure '7' is the nominal rounded value of the caliber (bore diameter) in millimeters and the '64' is the case length, again rounded in millimeters. English speaking countries use the Imperial system where calibers are expressed in inches (1" = 25.4 mm) and omit the case length, e.g. .243 Win. In some instances an extra figure can indicate the origin of the caliber, e.g. .30-06; this is a .30 inch caliber introduced in 1906.
Sometimes the name of the manufacturer that developed and introduced a cartridge is included in its description e.g. 6.5 x 65 RWS or the .30R Blaser.

Close-season calibers

"Close-season calibers" is a term used for those calibers which are popularly used in the close season for pest control and varmint. These are usually in a fairly small caliber, such as the .22 Hornet.

Primer groove lacquer seal

Cartridges of the same caliber may have bullets that have the same design but different weights. RWS makes it easy to recognize the cartridge; those with heavy projectiles have a red or green lacquer seal in the groove between the primer and the base.

Examples within a caliber group:

Bullet with the lightest weight:

Bullet with a medium weight:

Bullet with the heaviest weight:

Special case: 8x57 IS / 8x 57 IRS
Currently RWS is manufacturing the two calibers 8x57 IS and 8x57 IRS. These may under no circumstances be fired from weapons with the caliber designation 8x57 I or 8x 57 IR. To avoid confusion, with RWS the calibers 8x57 IS and 8x57 IRS are marked with a black circular laquer coating around the primer.

The designation matters

Metric and imperial systems

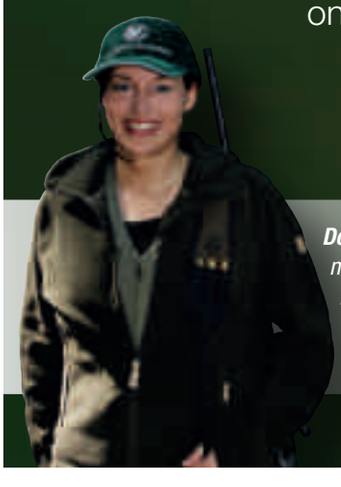
Metric system	Examples	Imperial system (diameters in inches)	Examples
5,6 mm	5,6 x 50 R Magnum	.222 - .228	.22 Hornet, .222 Rem., .223 Rem.
6 mm		.243	.243 Win.
6,5 mm	6,5 x 65 RWS	.257 - .264	
6,8 mm		.277	.270 Win., .270 WSM
7 mm	7 x 64	.284	.280 Rem.
7,62 mm		.308	.308 Win., .30-06, .30 R Blaser
8 mm	8 x 57 I	.318	
8 mm S	8 x 57 IRS	.323	
9 mm		.358	
9,3 mm	9,3 x 62	.364 - .366	
9,5 mm		.375	.375 H&H Mag.
10,3 mm	10,3 x 60 R	.413	
10,75 mm		.423	.404 Rimless

The dimensions on the metric system (in mm) correspond approximately to the imperial dimensions (in inches).

INFORMATION ON THE SPOT

The package

Every RWS cartridge package is printed with a clear summary of the ballistic information, so that it is available on the spot when you are out hunting. A special fold-out card on the back of the package presents a detailed picture of the bullet, its effect on game, and other practical information for the hunt.



Doris Adam (International Sales Manager at RWS) *– The new RWS package includes just about all the information that a hunter needs to answer the question: "Is this the bullet I need?" The advantages of the product are visible at a glance, and one can see a picture of the operation of the specific projectile. With our enormous range of products, we think that it is important to provide some orientation. Especially when combined with the brochures, the RWS web site, and the new RWS app, everybody can find their optimum bullet or caliber. What you might call a tip from hunters for hunters.*

22 Hornet - 5,6x57

.243 Win. - 6,5x68

.270 Win. - .300 WSM

8x57 JS - 8x68 S

9,3x62 - 10,3x60R

Tear-off fold-out card with ballistic data and bullet details, for use during the hunt.

1. Ballistic data in the metric system for spot-on aiming point correction or fast correction of the scope reticule and ballistic reticules
2. Stages of bullet deformation / disintegration to illustrate the method of operation
3. Bullet type
4. Caliber designation
5. Bullet weight in grams and grains (1 grain = 0.0648 grams)
6. Ballistic data in the imperial system
7. Production code / batch number (2 numbers and two letters) provides information about the production series of the cartridges.

RELIABLY ON TARGET

Basic ballistics

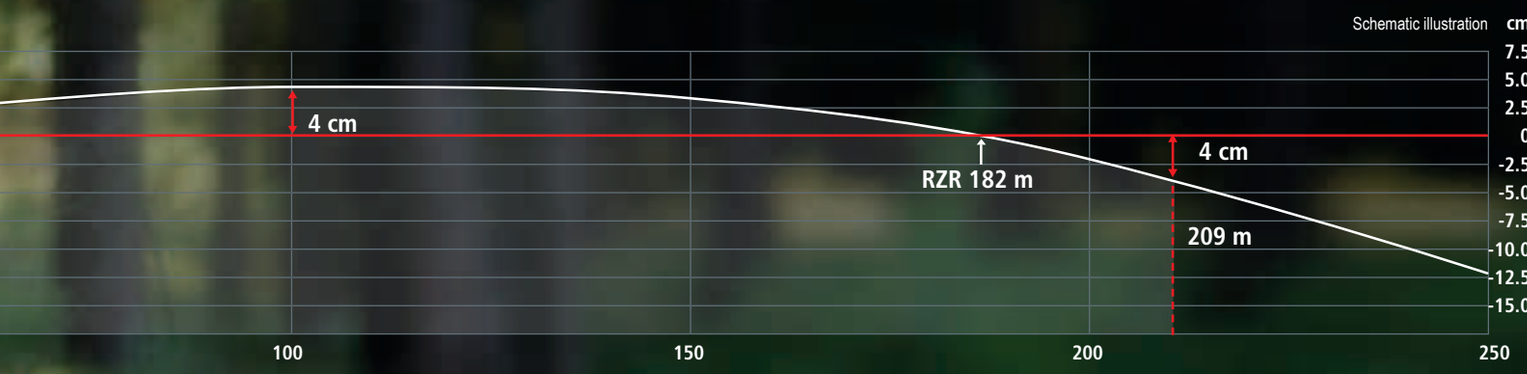
Ballistics is “the science of the shot”. We distinguish between 4 different areas:

Internal ballistics covers all that happens as the shot is made, such as gas pressure and bullet velocity within the barrel. Rotationless flight (freebore) is that short distance where the bullet is no longer held in the neck of the cartridge, but has also not yet been pressed into the lands (the raised sections of the barrel cross-section) of the barrels, so it has not yet started to spin. The grooves (deeper sections of the barrel cross-section) and the lands impart a stabilizing spin to the bullet as it travels down the bore.

Muzzle ballistics refers to what happens around the muzzle as the bullet leaves the barrel. Exterior ballistics deals with the free flight of the projectile after it has left the muzzle and before it reaches the target, taking into account all exterior influences, such as gravity, air resistance and atmospheric parameters.
Finally, target ballistics concerns the effect of the projectile on the target.

Acquiring ballistic data

The ballistic data for RWS cartridges are not absolute values, but average values derived from a large number of measurements with guns from various manufacturers. Different barrel lengths, for instance, can effect these values quite significantly. The test-firing results for all cartridges are acquired and evaluated under constant test conditions in our physical ballistics laboratories. As a rule, the values shown in our ballistics data apply to a horizontal shot at mean sea level.



on target up to 209 m, without altering the aim

The trajectory

As well as cartridge description we also give the barrel length used to obtain our data; for RWS calibers this is normally 600 mm. If the length of the barrel in a particular gun is a few mm longer or shorter than the specified length, then the velocity will be correspondingly higher or lower and for high-power cartridges this value may therefore vary by up to 20 meters/sec. The data also assumes that the telescopic sight is mounted so that the line of sight is 5 cm (2") above the axis of the bore. Positive values indicate a high shot; negative values indicate a low shot.

Recomended Zero Range – RZR

Recomended Zero Range is defined as the point where the projectile trajectory falls and crosses the line of sight again and assuming that the bullet has not risen more than 4cm above the sight line while in flight. So in the example illustrated above, it is not necessary to alter the point of aim for distances up to 209 meters and so it is possible to zero the rifle (sighting-in) at 100 meters. For instance, when using a 7 x64m at this distance, it should shoot 4 cm high in order to use it at all ranges up to the 209 meters shown in the example without correcting the point of aim. The RWS sighting-in target, with the corresponding tips for accurate zeroing, is ideal for zeroing a rifle. (Available as a download under www.rws-ammunition.com)
It is well known that the point of impact of RWS cartridges hardly alters from one batch to another, however a hunter should always take a test shot when using new ammunition with a different batch number.

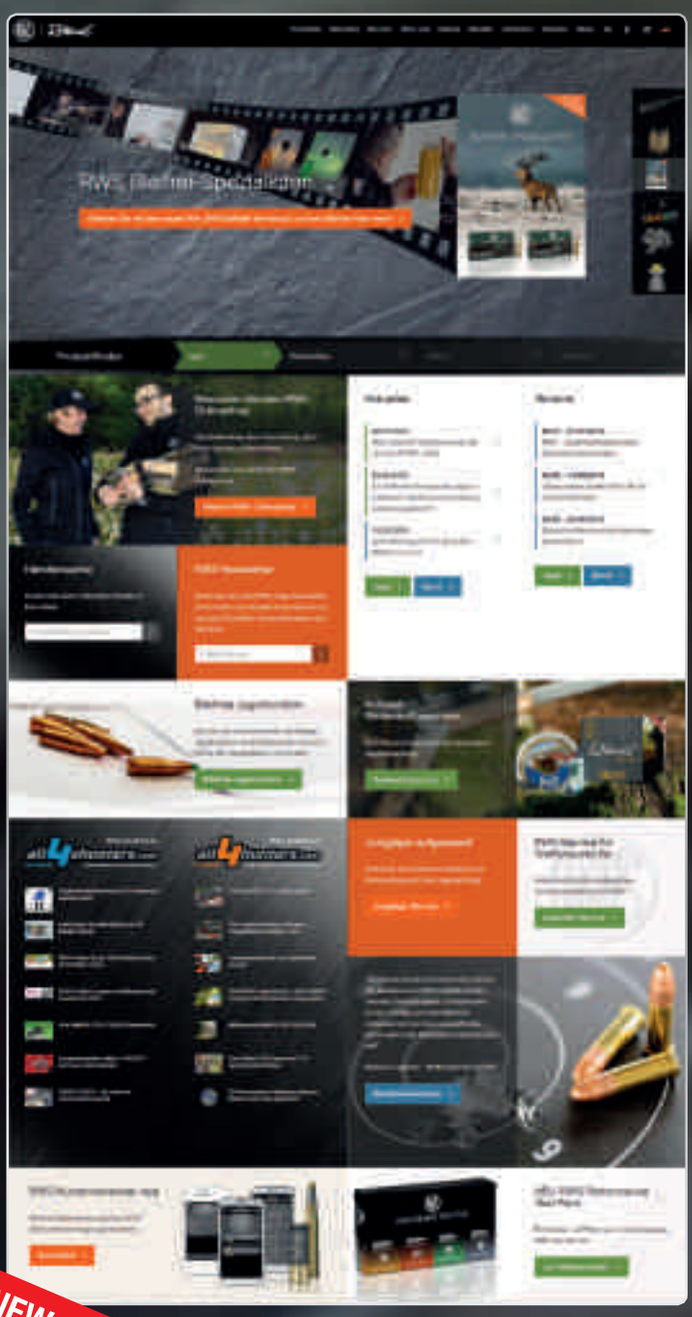
Layout and interpretation of the tables: see P. 62 ff

Fact, every fired projectile is slowed down by air resistance. This reduction in velocity depends on the profile and the mass, as well as the velocity of the projectile and the density of the air. The ballistic coefficient (BC) is a parameter for the projectile-dependent influences on this deceleration, and is thus a measure of how much a projectile will be slowed down by air resistance, or, looking at it the other way, its ability to overcome air resistance.
The velocity V is given in meters per second (m/s) for distances of 0, 50, 100, 150, 200, 250 and 300 meters. V_o is therefore the value at zero distance from the muzzle – in other words, the muzzle velocity.
The kinetic energy of a projectile is calculated from its velocity and its mass. Energy values are given in joules (J), also for distances from 0 to 300 meters. E_{100} is therefore the energy delivered to the target if the bullet strikes the game at a distance of 100 meters. In Germany, the minimum requirements are: E_{100} = 1,000 J when hunting roe deer with a rifle, and E_{100} = 2,000 J with a minimum caliber of 6.5 mm when hunting other hoofed game.

EVERYTHING AT A GLANCE

The new RWS homepage

After two years online we have given the RWS and Rottweil homepage a new look, improved access and made it more ‘user friendly’. Existing users of the site will appreciate the substantial improvements and new users should find the site comprehensive, informative, direct and easy to use. Our aim is to offer more than just basic product information e.g. the new updated product advisor now available as an Iphone App. Our website is updated daily and continues to evolve. We have a number of new ideas and projects that will appear on the website in the next few months, please visit us and browse at: **www.rws-ammunition.com**



An internet developer should always remember that whatever was OK on the web yesterday is possibly outdated today. We have developed a philosophy as to how we wish to communicate via the internet and have implemented three basic ideas.

Everything at a glance
Our new homepage includes both Hunting and Sport. Large selection windows make it easier for you to enter the product areas and just a few clicks will take you to your chosen line where you will find comprehensive information.
Products can be found faster, via different routes and information can be obtained from data sheets and videos.

Up to date
Our new website has a redesigned and up to date look. It is easier to read, uses larger font sizes, new photo’s and an innovative page layout that uses the entire width of the screen. We have added new databases to simplify and speed up our site, we want you to find not search. We will continue to update the site with developments, news and results. In short:

New look
User friendly
Topical
More information
On all our pages you will find more facts, specialist knowledge, tips and connecting links.

We now offer:
More information and facts about ammunition.
More information for specific interest groups.
More online service offers.

rws-ammunition.com

NEW: Now for all mobile phones as well

RWS offers a lot of new online services

Service and communication is an important part of our Company philosophy and this is reflected in our new website. You can already find:

- an informative newsletter for Hunting and Sporting shooters, just register to receive it.
- a free Iphone App for the RWS product advisor
- an interactive glossary for all specialist terms
- the RWS hunting weather
- a new dealer search, using geo-localization
- attractive special offers for specific interest groups (e.g. clubs or young hunters)
- many connecting links to interesting topics

… and, of course, the popular RWS sighting-in target.

Don't forget that with every new purchase of ammunition or at the start of the season you should fire one or two shots to check zero and re-familiarise yourself with your weapon; confidence in your ammunition and gun contributes to greater success.

In the download section of our website you can find the popular RWS sighting in target as well as a number of practical tips to help avoid any 'nasty surprises' in the field.

Get online and register for the RWS newsletter, at

rws-ammunition.com

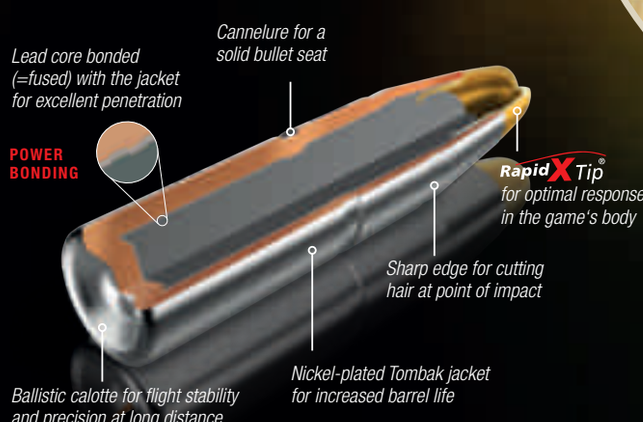
Projectiles
TAILOR-MADE

If hunting is extremely varied then so are the demands made on ammunition. Materials, bullet geometry, construction, mass and effect characteristics are all factors that must be taken into account when choosing the correct bullet.
Large, medium or small game, short or long ranges , solo hunting or driven game - RWS offers a bullet for every hunting situation. RWS bullets are special; they are ballistically designed to possess the characteristics to determine accuracy, trajectory, energy and deformation capability.
Every hunter directly from the dedication which RWS applies to the development and production of its projectiles. Bullets from RWS guarantee accuracy, performance and reliability for every hunting situation.

www.rws-ammunition.com

EVOLUTION
For convincing penetration

The advantage of using the Evolution® bullet becomes particularly obvious with a bone-hit, especially on larger game. Where a classic hits substantial bone structure, leaving little residual energy for penetration and exit, an Evolution® bullet will remain largely stable in its mass.
Thanks to the special bonding of the lead core with the Tombak jacket (Power-Bonding), the retained mass is well-nigh 100 %, thus making an exit wound highly probable and preserving the meat. Because of their aerodynamic geometry and the ballistic calotte, Evolution® bullets are distinguished by a high level of intrinsic accuracy. They have a flat trajectory and ensure high impact energy, even at long ranges.

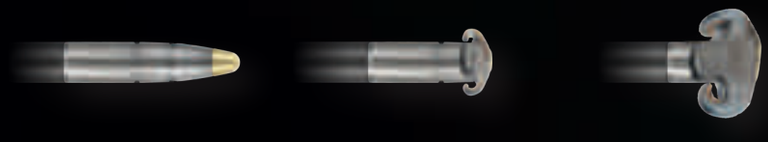


The features at a glance:

- Convincing penetration – even with bone impacts
- Preserves the meat – almost 100 % retained mass, thanks to Power-Bonding
- Aerodynamic projectile profile and the ballistic calotte produce outstanding accuracy
- Nickel-plated jacket to preserve the barrel
- Rapid-X-Tip® for fast, controlled deformation

Calibers:

6,5x55	.300 Win.Mag.
.270 Win.	. 300 WSM
7mm Rem.Mag.	8x57 JS
7x64	8x57 JRS
7x65 R	8x68 S
.308 Win.	9,3x62
.30-06	9,3x74 R
.30 R Blaser	



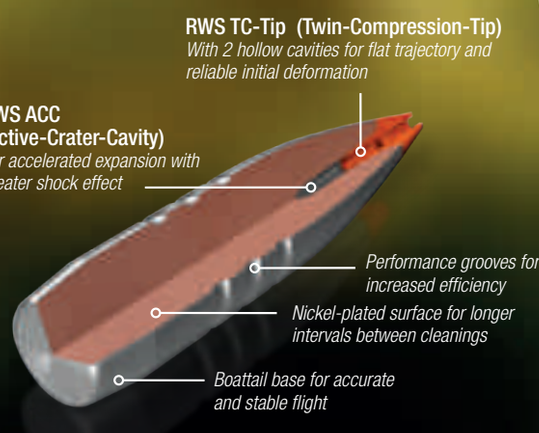
Simulated wound cavity in a gelatine block

NEW

HIT

Convincing penetration - lead-free

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.



Bleifreies Geschoss GREEN™ Lead-free bullet

The features at a glance:

Superior Penetration – The mushroomed slug retains its integrity despite the bullet's rapid expansion. This guarantees deep penetration and a certain exit, even at very high impact velocities and/or against heavy resistance such as major bones. It is in the taking of larger game that the superior qualities of this bullet are the most impressive.

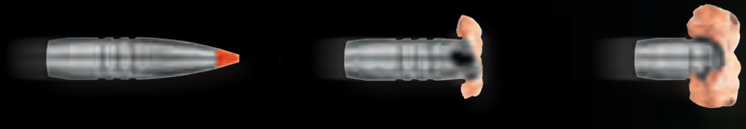
Less Damaged Meat – Unlike fragmenting bullets, the lead-free RWS HIT imparts its energy exclusively by a 100% fragment-free mushrooming of the copper bullet in the game animal. The result: Less wasted meat and no bullet fragments!

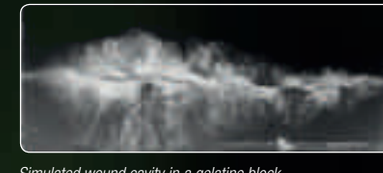
Impressive ballistics – With its flat trajectory and immense energy, the RWS HIT is the top choice for long-range game shooting in high-velocity calibres.

Powerful Shock Effect – Quick and certain bullet expansion in all game, even at longer ranges!

Calibers:

.270 Win.	.300 Win. Mag.
.270 WSM	8x57 JS
7mm Rem. Mag.	8x57 JRS
7x64	8x68 S
7x65 R	9,3x62
.308 Win.	9,3x74 R
.30-06	





Simulated wound cavity in a gelatine block

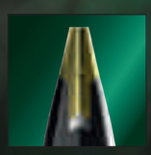
GREEN EVO FRAGMENTATION

EVOLUTION GREEN

The Intelligent Alternative

With its newly developed projectile EVOLUTION GREEN, RWS now offers an intelligent alternative for all those who prefer not to use conventional, lead-core ammunition. Thanks to the cleverly devised, precisely coordinated features of its design, the new bullet guarantees humane and successful hunting. A specially pre-fragmented front core made of tin, a food safe metal, and the use of RWS' new Speed Tip bullet points enable the RWS EVOLUTION GREEN to achieve an impressive shock effect, particularly at long range. EVOLUTION GREEN projectiles naturally have all the advantages you would expect from an RWS rifle cartridge: they are reliable, effective, precise, kind on the barrel and innovative.

Front core composed of food-safe tin with a radial pre-determined break point for reliable impact behaviour and high impact shock

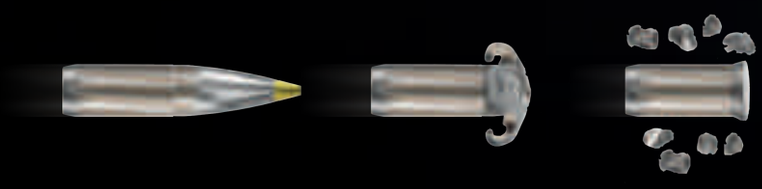


Speed Tip bullet point for maximum knock-down power and a flat trajectory

Bleifreies Geschoss GREEN Lead-free bullet

Calibers:

6,5x55	.308 Win.
6,5x57	.30-06
6,5x57R	.30 R Blaser
6,5x68	.300 Win.Mag.
.270 Win.	8x57 JRS
.270 WSM	8x57 JS
7x57 R	8x68
7mm Rem. Mag.	9,3x62
7x64	9,3x74 R
7x65 R	

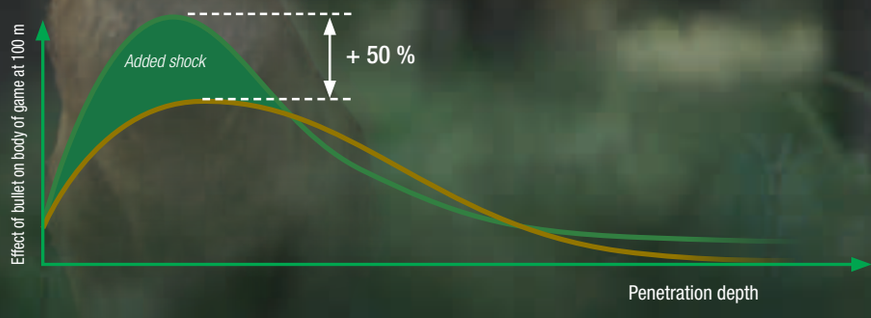


Simulated wound cavity in a gelatine block

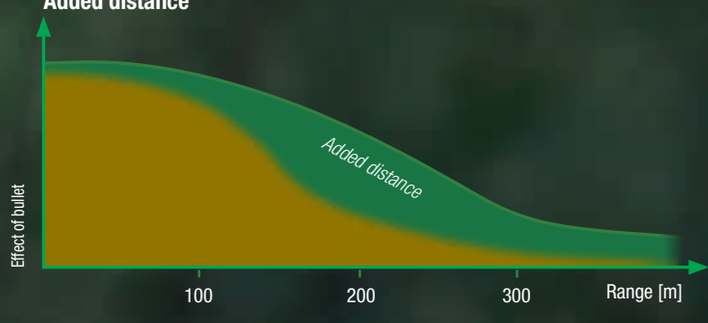
The features at a glance:

- **Added shock:** excellent impact behaviour thanks to multiple perforations in the front tin core coupled with Speed Tip bullet points for impressive impact shock. This results in faster kills, meaning markedly shorter flight distances and fewer searches.
- **Added distance:** impressive killing effect, even at long range. With conventional designs, there is a tangible decrease in deformation capability at long distances. Not so with the EVO GREEN. Here, this effect is noticeably reduced thanks to the intelligent design of the projectile.
- **Outstanding ballistics:** flat trajectory with high levels of speed and energy thanks to the optimised bullet form (high BC) with its Speed Tip bullet point.
- **Reliable tracking signs:** ❶ Guaranteed exit wound for reliable blood flow thanks to stable tail body ❷ Sharp edge delivers the desired clean cut

Added shock

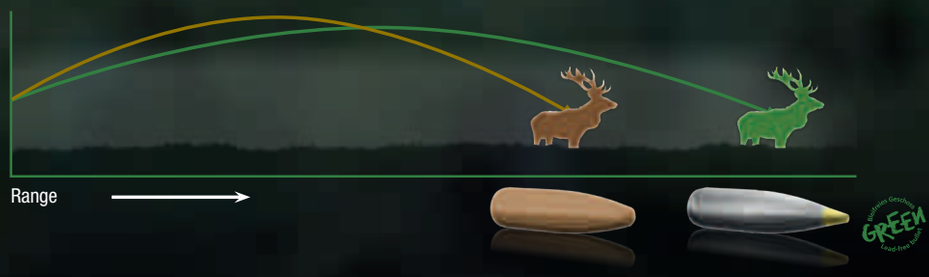


Added distance

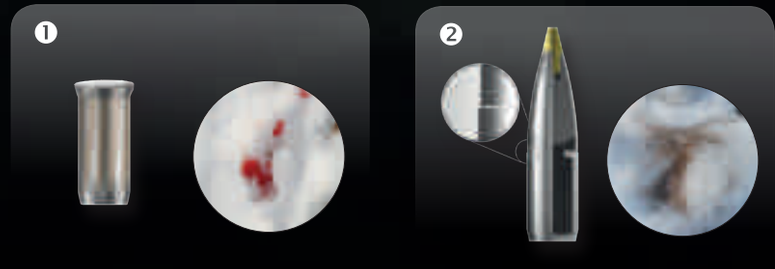


EVO GREEN
Conventional, lead-free bullet

Outstanding ballistics



Reliable tracking signs



PROFESSIONAL

SPEED TIP PRO

Highest knock down power at all distances

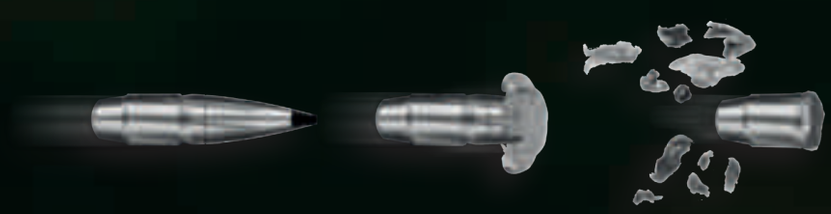
Rapid technological progress in the field of firearms and optics now make it possible to shoot and hunt at ever greater distances. Plus, the growth in the number of hunting trips means that hunting ammunition has to be effective at various ranges and for multiple of classes of game. Mountain hunting and hunts for large – African – game require high penetration and great stopping power. RWS has now developed the perfect solution for this high-velocity caliber that‘s effective at ranges from close in all the way to 400m and beyond and can handle multiple classes of game. The RWS SPEED TIP PROFESSIONAL is one of the latest developments from RWS aimed at providing very high shock/stopping power as well as effectiveness at long range..

The features at a glance:

– Extreme Knock-Down Power even on long distances
– Rapid Ballistic
– High Precision

Calibers:

.338 Lapua Magnum



Simulierte Wundhöhle im Gelatineblock

H-MANTEL

For maximum effect

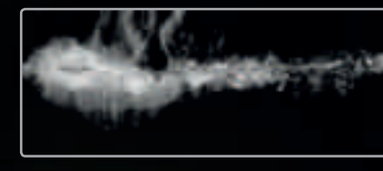
The special feature of this bullet is the famous H cannelure, a neck formed about halfway along the jacket, which functions as a predetermined break point. It helps to separate the two bullet cores with their different hardness, and is responsible for the dual effectiveness of this projectile. The front portion disintegrates very quickly on striking the game and releases a great deal of energy – for maximum shock. The cylindrical rear section breaks off at the H cannelure, drives through the body of the game without significant deformation, and thus ensures a reliable exit wound. The suction effect of the rear section ensures that most of the fragments from the front core will be drawn out of the body of the game.

The features at a glance:

- Bullet is highly effective
- H-shaped neck produces controlled fragmentation
- Mildly bumped-up base ensures a reliable exit wound
- Little damage to the meat

Calibers:

.270 Win.	8x57 JS
7x57R	8x57 JRS
7x64	8x68 S
7x65R	9,3x62
.308 Win.	9,3x74 R
.30-06	



Simulated wound cavity in a gelatine block

UNI CLASSIC

For heavy game

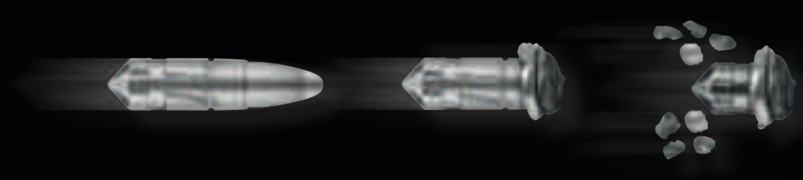
The UNI Classic bullet was developed for hunting heavy hoofed to big game. With a harder and heavier rear core it expands less than the ID Classic and this acts to increase penetration. Similar to the ID Classic the front core offers controlled fragmentation for high impact shock and its torpedo shaped base promotes stability in flight.

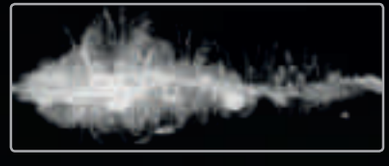
The features at a glance:

- UNIVERSAL for heavy game
- Front core fragments and ensures a fast energy transfer to the target
- Sharp edge makes a clearly visible entry wound with a clean cut
- Harder rear core shows limited deformation and reliably produces the desired exit wound
- Rearward neck limits the tearing-off of the jacket strips
- Little damage to the meat

Calibers:

.308 Win.	9,3x62
.30-06	9,3x64
.30 R Blaser	9,3x74 R
.300 Win. Mag.	.375 H&H Mag.





Simulated wound cavity in a gelatine block

ID CLASSIC
For light game

The basic idea of the ID Classic is to combine wide-area and penetration shock on the target. This has been achieved by combining two lead cores of different hardness, one of which plugs into the other. The softer front core undergoes controlled fragmentation and transfers its energy quickly to the body of the game. The rear core of the ID Classic bullet expands rapidly, compared to the UNI Classic, and is therefore especially suitable for light to medium game.

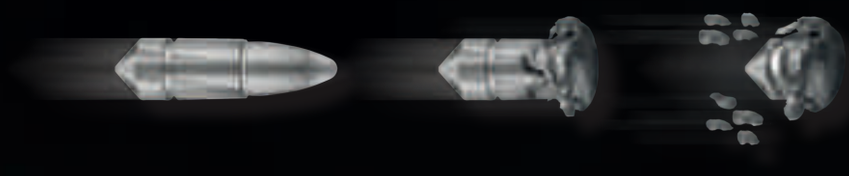
The nickel-plated mild steel jacket is easy on the barrel and becomes thicker towards the rear, to ensure controlled deformation. Its torpedo shaped base promotes stability in flight.

The features at a glance:

- IDEAL for light and medium game
- Rapid partial fragmentation ensure high energy transfer
- Normally an assured exit wound
- Sharp edge to make the desired clean cut
- Rearward neck limits the tearing-off of the jacket strips

Calibers:

7x57	7x65 R
7x57 R	.308 Win.
7 mm Rem. Mag.	.30-06
.280 Rem.	8x57 JS
7x64	8x57 JRS



Simulated wound cavity in a gelatine block

DOPPELKERN

For a controlled impact shock

This double core projectile contains cores of different hardness. The front core fragments producing high impact shock and the deformation of the rear core is controlled by the unique gilding cup that separates the two cores. With the cores having a 50 : 50 weight ratio this ensures a perfect balance between impact shock and a straight wound channel for an exit wound.

The features at a glance:

- Good, clear effect of the shot on the game
- Extremely short flight distance
- Sharp edge ensures a clean-cut exit wound
- Fast, controlled energy transfer produces high impact shock
- Reliable exit wound guarantees enough blood flow
- Little damage to the meat

Calibers:

6,5x55	.300 Win. Mag.
6,5x57	8x57 JS
6,5x57 R	8x57 JRS
7x65 R	8x68 S
.308 Win.	9,3x62
.30-06	9,3x74 R
.30 R Blaser	

Simulated wound cavity in a gelatine block

KEGELSPITZ

For maximum precision

Whether large or small game – the bullet expands in a controlled manner and transfers energy evenly to the body of the game, while retaining an effective expanded residual portion for the exit wound. The secret lies in the optimum balance between jacket thickness and the hardness of the lead core. The profile of this projectile creates ideal conditions for high accuracy and low air resistance.

The features at a glance:

- Extraordinary accuracy, thanks to the long cylindrical section of the projectile
- The cannelure towards the rear of the bullet stops deformation and ensures an compact residual portion with a high probability of an exit wound
- Low residue level in the body of the game

Calibers:

5,6x57	.270 Win.	.30 R Blaser
.243 Win.	7x57 R	.300 Win. Mag.
6,5x57	7 mm Rem. Mag.	8x68 S
6,5x57 R	7x64	9,3x62
6,5x65 RWS	7x65 R	9,3x74 R
6,5x65 R RWS	.308 Win.	.375 H&H Mag.
6,5x68	.30-06	

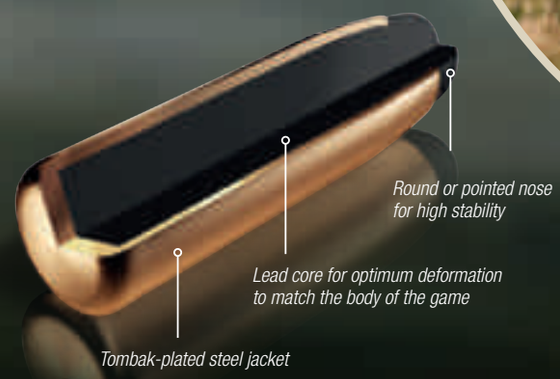
Simulated wound cavity in a gelatine block

MANTEL

SOFT POINT

For high energy transfer

A type of bullet that has been very successful for decades, and which still has many fans today. The well-established design provides high energy transfer to the body of the game – for good knock-down performance. With a pointed nose or a robust round nose.



The features at a glance:

- Fast deformation capability on light and heavy game
- High energy transfer to the body of the game
- Insensitive bullet point for rough handling

Calibers:

.22 Hornet	5,6x52 R	8x57 JRS
.222 Rem.	.243 Win.	9,3x62
.223 Rem.	6,5x68	9,3x74 R
5,6x50 Magnum	7x57 R	
5,6x50 R Magnum	8x57 JS	

Simulated wound cavity in a gelatine block

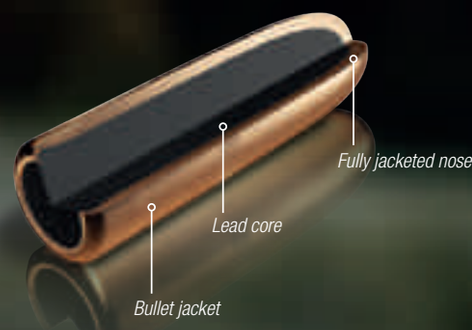
FULL METAL JACKET

For special applications

Full Metal Jacket bullets have a variety of uses including training, varmint hunting and in some countries for shooting small game birds. In large calibers they are also suitable for game such as buffalo; they can punch through tough bones and a heavy body. To ensure the bullet performs and travels through the body the nose of the bullet must be enclosed and in some cases reinforced. Small calibers have a sharper more pointed nose and the larger calibers are more rounded.

Calibers:

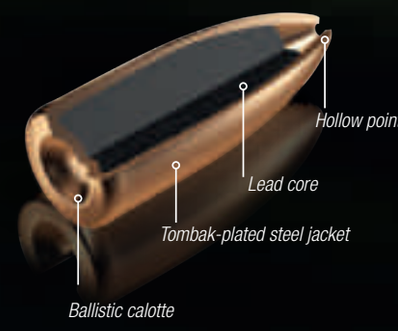
.22 Hornet



HUNTING MATCH

For training and competition

Generations of young hunters and competition shooters have successfully relied on these cartridges for there training and tests. Federal German hunting laws require a minimum energy of E_{100} > 1000 J and this makes the RWS .222 Rem MJ 52g bullet especially suitable for training for a hunting licence and to use in the practical examination.
It is not suitable for actual hunting.



Calibers:

.22 Hornet, .222 Rem.

EXPERTS TRUST RWS

Michael Agel (Communications & Public Relations, Leica Sport Optics). *The focus is increasingly on expansion bullets where hunting rifle rounds are concerned, as they impress with a low residual weight and dependable effectiveness. The* ***Evolution*** *bullet exhibits exactly these characteristics, and is a thrilling companion when out on hunts. The high stopping power and impressive penetration make this bullet my absolute favorite for use with all domestic game — even when bones are hit. A bullet that provides optimal accuracy even in borderline situations and ensures excellent effectiveness. I feel the price is justified, as good things do not come cheap, whether it's ammunition or optics!*

Mads Jessen (Journalist) *– In Scandinavia, the 6.5x55 is Number 1! Because we are crazy about target shooting as well as hunting we clever Scandinavians worked out a long time ago that the 6.5x55 is a great cartridge for both. To compensate for the fact that this caliber is a rather small one for a universal caliber, I insist on partial fragmentation bullets for hunting heavier game. The* ***Doppelkern*** *(double core) is not only very effective, it also causes little damage to the meat. After all, the second great enthusiasm of Scandinavians is eating.*

Oliver Schmider (Sales&Marketing Director, Merkel Jagd- und Sportwaffen) *The history of Merkel hunting rifle factory in particular has shown that time-proven systems continue to form the basis for first-class hunting weapons. And the RWS* ***UNI Classic*** *superbly demonstrates that the same applies for ammunition. The RWS* ***Uni Classic*** *in caliber 7x64 has accompanied me around the globe for many years and impresses with its dependable effectiveness, particularly with big game. For me, the short flight distances and high penetration are crucial aspects in humane hunting.*

Matthias Klotz (General Manager of Sauer & Sohn GmbH) *– For me, the optimum caliber and projectile for a specific type of hunt and game are distinguished by the sum of their positive features. Thanks to my S 202 Take Down I have unlimited flexibility in the matter of caliber. And as for the bullet, I have trusted* ***Kegelspitz*** *(spire points) for years. Whether they are 6.5x55 (8.2 gram KS), .300 Win. Mag. (10.7 gram KS) or 9.3x62 (16 gram KS): I can rely on these classic bullets at any time, as they all have enormous accuracy, outstanding impact shock, and an acceptable level of meat damage.*

Gunther Stoschek (Creative Director at Blaser Jagdwaffen GmbH) *– More than three decades ago, right at the start of my training with Blaser, a saying in the company was: the* ***H-Mantel*** *(H-jacket) from RWS almost always shoots the best! And today it is still rated as one of the very clear favorites in our numerous long-range shooting seminars. For hunting, I have learnt to appreciate the H-jacket bullet, especially in the "slower" calibers, such as .308 Win. or 7x57R. The concealed hollow point means that it has an excellent impact behavior even at long ranges, thus ensuring an excellent shock effect. And there is always an exit wound, even with large game, although I hardly need it, since the game usually drops on the spot*

Also No. 1 for professionals

RWS rifle cartridges are the clear favorites for Germany's professional hunters.*

**According to a survey of 124 professional German hunters, the RWS market share was twice as large as the second-placed brand.*

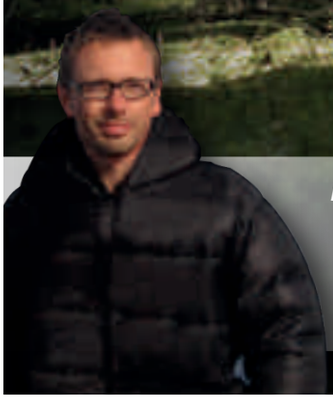
ALWAYS SOMETHING *Special*

Different areas of application require different and special cartridges. For hunting in extreme conditions, long range match shooting, training or even personalised cartridges RWS can offer the ammunition solution.

RWS cartridges are as good as they look; effective, reliable, technically and ballistically advanced.
RWS rifle cartridges - special in every way.

rws-ammunition.com

Silver Selection



Kasper Johansen (Researcher at the Danish National Environmental Research Institute) *– On my expeditions to Greenland, I always have my rifle and ammunition with me. In the event of an attack by a polar bear, I want to be prepared. The low temperatures and the resulting rough handling of the material show up the heavy demands made on a reliable cartridge very clearly. If attacked, there would be no time for misfires. So the Silver Selection, developed for extreme conditions and with an unparalleled reliability, has become our life insurance.*

SILVER SELECTION

Technically and aesthetically unique

With the implementation of unique innovations, incomparable performance and stunning looks we have exceeded our own high expectations with the new Silver Selection.
The Silver selection is a unique type of cartridge unmatched in all respects by any competitors and underlines the creative technological leadership position if RWS rifle cartridges. A new definition of high performance means that the RWS Silver Selection is suitable for hunting even in extreme situations.
On ice or in a desert, in the Taiga or deep forest, day or night the advanced features of the Silver Selection can cope with all hunting situations. Silver Selection is the cartridge of choice for the hunter who can face up to any challenge and demands only the best from himself and his ammunition.

UNI PROFESSIONAL NEW
for accuracy, flat trajectory and high effectiveness

EVOLUTION
for accuracy, penetration and flexibility

NICKEL FINISHED CASE
for easier chambering and fast reloading

FLASH CONTROL
for reduced muzzle flash to keep the hunting situation in view

HIGH PERFORMANCE LOAD
for power reserves in extreme situations

SUPER CLEAN TECHNOLOGY
for maximum functional reliability without pollution

Silver Selection

EVO EVOLUTION

- Deformation projectile for minimum meat damage and effective penetration shock
- Outstanding accuracy
- Kind to the barrel
- Flexible in use
- Rapid-X-Tip® for fast, controlled deformation

NEW UNI® PROFESSIONAL

- Partial fragmentation projectile for high impact shock and assured exit wound
- Ballistically optimized projectile profile reduces air resistance and flattens the trajectory
- Modified nickel-plated jacket ensures a reliable effect on the body of the game
- UNI precision V-tail provides outstanding stability in flight and accuracy at long distances

SUPER CLEAN

The original advantage of the Super Clean technology lies in the fact that it prevents any heavy metal emission arising in the vicinity of the shooter. In order to be able to fulfill the requirements resulting from the extreme range of application of the Silver Selection, the primer compound has undergone further development. Silver Selection has the highest level of functional reliability, even under extreme temperature conditions. And Super Clean technology protects against ignition delay in critical situations, the gold-plating of the cup protecting against corrosion.

FLASH CONTROL

The Flash Control technology used in the Silver Selection is a new innovation taking RWS technical expertise to a new and higher level. It reduces muzzle flash and in darkness allows the hunter to retain his night vision and keep the quarry in sight.

HIGH PERFORMANCE LOAD

We go to the limits of what is technically feasible to reach the optimum performance of Silver Selection. A special new powder, combined with a performance-oriented load ensures power reserves – all for hunting success under extreme conditions.

NICKEL FINISHED CASE

The RWS cases used for Silver Selection have been additionally enhanced in the in-house plating plant. The special surface makes the cases even more resistant to external influences. The Nickel Finish technology applied to the Silver Selection cartridge cases makes them easier to chamber and faster in reloading than normal cartridges.

Calibers EVO:

.308 Win. .30-06 .300 Win. Mag.
9,3x62 9,3x74 R

Calibers UNI PRO:

.308 Win. .30-06 .300 Win. Mag.

Constantin Freiherr Heereman von Zuydtwyck (Honorary President of the Federation of German Hunters) *– Festive occasions require a festive arrangement. A handmade and individually engraved Special Edition has often shown itself to be very appropriate. It makes a marvelous present for a really special occasion. I have never seen anyone who did not appreciate this form of recognition.*

SPECIAL EDITION

A personal masterpiece

This exclusive special series, available in eight classic hunting calibers, is a true rarity. Every individual component, from primer through case and powder to the bullet, has been carefully selected, tested, refined, and then, finally, loaded by hand with meticulous precision. The 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-jacket bullets are gold-plated, with noble black ruthenium-coated cartridge cases engraved with the name of the person, making this range of cartridges into a personal masterpiece.

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

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 enhancement and the hand loading of the Special Edition guarantee the highest accuracy and reliability for every single cartridge.

Calibers:

7x64	.300 Win. Mag.
7x65 R	8x57 JS
.308 Win.	8x57 JRS
.30-06	9,3x74 R

Iain Robertson (Executive Officer, Shooting Committee, NRA) - *In 2008, RWS was selected as the supplier for the Imperial Meeting of the National Rifle Association of Great Britain, which is held annually in Bisley, Surrey, and reaches its culmination with the most prestigious shooting competition in the world: "Her Majesty the Queen's Prize". Very severe specification were laid down, in order to achieve the best possible performance within the technical limitations of pressure and velocity for the special*

TARGET ELITE

Ultimate match grade cartridges

The special cartridges from the TARGET ELITE series make it possible to achieve a high degree of accuracy at very long ranges. High quality components are loaded using the most modern manufacturing methods to create first class match cartridges which are highly favoured by shooters with high demands for accuracy. TARGET ELITE in .308 Win is suitable for distances up to 600 meters; TARGET ELITE Plus can be used for extreme ranges up to 1200 meters. An advanced precision two step loading process provides the TARGET ELITE Plus with extremely finely tuned ballistics and consistent accuracy taking the standard of precision target shooting to new levels.

RWS: Partner of the NRA

RWS is the exclusive supplier for the National Rifle Association in Great Britain. The prestigious Imperial Meeting in Bisley is shot over distances up to 1200 yards (nearly 1100 meters), using RWS match cartridges. RWS convinced our partners through outstanding precision.

TARGET ELITE

target rifles which are used for this world-class competition. For three successive years, RWS has supplied ammunition that has no problem in exceeding all the specifications. The critical test for competition ammunition is its consistency. NRA members have by now fired off more than a million RWS cartridges, and can be sure that "it lands where you point it" every time. With RWS, competition has become tougher but fairer, and the performance has improved at all levels of the sport.

TARGET ELITE

- Highest quality “Made in Germany”
- Competition-level accuracy
- For competitive disciplines up to 600 meters
- Loaded in accordance with established production methods, using the Single Step Loading Technology process
- RWS cases in the usual high quality, with tried and tested HPBT match bullets
- Bullet weights adjusted to suit a wide spectrum of twist rates

Single Step Loading Technology

1. Dosed powder charge
2. Check load weight
3. Seat bullet

Recommended for the following distances

Calibers:

.308 Win.

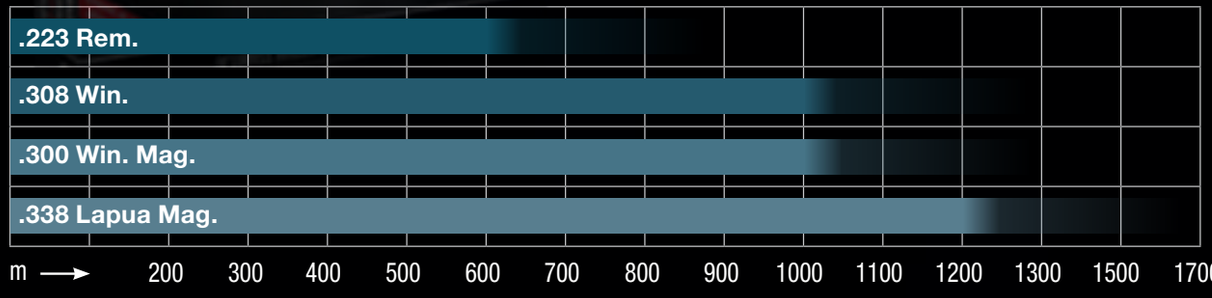
TARGET ELITE PLUS

in hand-loaded quality

- Highest quality “Made in Switzerland”
- Accuracy specification defined for 300 meters: maximum standard deviation of 16.9 to 25 mm when fired from test barrels
- For long-range disciplines up to 1200 meters
- Large bore cartridges loaded in “hand-loaded” quality on the basis of “Double Step Loading Technology”
- Specially produced match cartridge cases and selected HPBT bullets
- Consistent point of impact from one batch to the next
- Configured for high-end match rifles and the twist rates used for long range shooting

Double Step Loading Technology

Recommended for the following distances



Calibers:

.223 Rem.
.308 Win.
.300 Win. Mag.
.338 Lapua Mag.

CINESHOT

Humane hunting demands regular training

CINESHOT® is the first cartridge made especially for cinema ranges. Super Clean technology and the outstanding performance of this cartridge have been specifically adapted to this application. RWS developed CINESHOT® as an economical ammunition to enable regular training that does not create lead contamination and is kind to the rifle. Making a contribution to health and humane hunting.

cineshot.de

SHOT®

Super Clean

When shooting ordinary rifle cartridges, lead particles escape into the atmosphere. The lead pollution is especially high in the shooter's immediate surroundings and thus for the range personnel during training on indoor shooting ranges. But thanks to lead-free Super Clean prime technology, which has already been used for years in NATO-qualified ammunition, no more lead is introduced into the shooter's surroundings. In addition, encapsulation of the projectile around the base prevents lead particles becoming detached during the shot.

Lung-threatening lead (Pb) particles in the vicinity of the shooter, just after a shot with ordinary ammunition, and after firing a CINESHOT® cartridge.

Optimum performance

Because of the consistent load and a precisely adjusted projectile geometry, CINESHOT® has high intrinsic accuracy and sufficient gas pressure for reliable feeding in all normal commercial self-loading rifles. A special surface coating of the bullet minimizes friction between the bullet and the bore, and enables intensive training without overheating and intensive cleaning.

Calibers:

7x64	.30-06	9,3x62
.308 Win.	8x57 JS	.300 Win.Mag.

Peter Nölte (Range Officer, Müller Schießzentrum Ulm, www.mszu.de)
You see a lot in a cinema range: Cartridges from Russian military stocks, misfires, jammed systems, ruined guns, muzzle flash that almost reaches the screen, and a lot of other things that aren't so good. Fortunately, Cineshot has driven all this sort of thing out of the cinema ranges, because it is a special cartridge that is adapted to the needs of cinema ranges. So shooting is really fun! As a range officer I spend many hours each day in our 3 cinema ranges, and so I really appreciate Super Clean technology!

Individual

… like the hunt

The RWS application advisor

The fascinating thing about hunting is that every hunt is different and a new experience and situation so there is no universal answer to the question ‘which is the best bullet’ ? You must consider the type of hunt, kind of game, range, caliber, gun and the hunters personal preferences all make demands of the cartridge. RWS fulfills these demands with its comprehensive selection of cartridges.

Accuracy and the triple shock effect of impact shock, penetration shock and exit wound are all a matter of course for us; for every type of game, all ranges and minimum carcass damage. Special bullets from RWS for the most demanding situations.

The following tables list the most important criteria for RWS projectiles, and are intended to assist you in finding the ideal bullet for your hunt.

rws-ammunition.com

	Accuracy	Flight distance	Penetration	Stopping power	Exit wound	Clean cut	Meat damage
EVO EVOLUTION	very good	short	very deep	deep	certain	yes	very little
NEW HIT BULLET	good	short	very deep	deep	certain	no	very little
GREEN EVO FRAGMENTATION	very good	very short	medium	very deep	certain	no	variable
ST PROFESSIONAL	very good	very short	medium	very deep	certain	no	variable
MANTEL	very good	very short	medium	very deep	certain	no	variable
UNI CLASSIC	good	short	deep	deep	certain	yes	little
ID CLASSIC	good	very short	deep	very deep	usually	yes	variable
DK GESCHOSS	very good	very short	deep	very deep	usually	yes	little
KS GESCHOSS	very good	short	deep	deep	usually	no	little
MANTEL	good	short	medium	deep	usually	no	variable
MANTEL	good	short	medium	medium	certain	no	very little

FOUR WINS

1 CAL.

4 TYPES

20 CART.

PERFORMANCE TEST PACK

Out of Four, One. Find the optimal ammunition for your rifle with the new RWS Performance Test Pack! The Test Pack contains 4x5 RWS rifle cartridges loaded with four different special-purpose bullets, and a test target.
When purchasing a new rifle or looking for a new load, the hunter has the ability to find the best load for his rifle by using the RWS Performance Test Pack and its four test bullseyes. The test target included with the Test Pack has four differently coloured bullseyes - one for each of the loads - that are numbered to preclude confusion later. The test target also has instructions to help the shooter determine which load performs best. RWS promises maximum accuracy.

The Performance Test Pack is available in calibres .308 Win., .30-06, .300 Win. Mag., 8x57 JS and 9.3x62, all with both lead-core and lead-free bullets. The most important features as well as the unique properties of each bullet are provided on the outside of the packaging. The shooter receives not only a set of targets to determine the best load for his rifle, but also information on other important criteria such as shocking power and meat damage.

RWS Performance Test Pack - Four Wins!

Calibre Item No.	ctg/box	EVO EVOLUTION	NEW HIT BULLET	GREEN EVO FRAGMENTATION	UNI CLASSIC	ID CLASSIC
.308 Win.						
231 92 77	20	EVO 11.9g	HIT 10.7g	EVO GREEN 8.8g	UNI Classic 11.7g	
.30-06						
231 92 76	20	EVO 11.9g	HIT 10.7g	EVO GREEN 8.8g	UNI Classic 11.7g	
.300 Win. Mag.						
231 92 80	20	EVO 11.9g	HIT 10.7g	EVO GREEN 8.8g	UNI Classic 11.7g	
8x57 JS						
231 92 81	20	EVO 13.0g	HIT 10.4g	EVO GREEN 9.0g		ID Classic 12.8g
9.3x62						
231 92 82	20	EVO 18.8g	HIT 16.2g	EVO GREEN 11.9g	UNI Classic 19.0g	

Silver Selection

Projectile Article 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
.308 Win.																		
EVO	11.9 g	600	V[m/s]	785	745	707	669	633	598	565	⊕	100 m	-0.3	⊕	- 4.6	-14.7	-31.0	-54.1
231 72 10	184	0.366	E[J]	3667	3302	2974	2663	2384	2128	1899	RZR	161 m	1.7	4.0	1.3	-6.8	-21.1	-42.2
UNI PRO	11.7 g	650	V [m/s]	790	750	712	674	638	603	569	⊕	100 m	-0.3	⊕	-4.5	-14.5	-30.4	-53.2
231 75 42	180	0.367	E [J]	3651	3291	2966	2658	2381	2127	1894	RZR	162 m	1.7	4.0	1.4	-6.5	-20.5	-41.3
.30-06																		
EVO	11.9 g	600	V[m/s]	845	803	763	724	686	650	614	⊕	100 m	-0.6	⊕	- 3.6	-11.9	-25.5	-44.8
231 72 11	184	0.366	E[J]	4248	3837	3464	3119	2800	2514	2243	RZR	173 m	1.4	4.0	2.3	-4.0	-15.5	-32.9
UNI PRO	11.7 g	600	V[m/s]	850	808	768	729	691	654	619	⊕	100 m	-0.6	⊕	-3.5	-11.7	-25.0	-44.1
231 75 43	180	0.367	E[J]	4227	3819	3450	3109	2793	2502	2241	RZR	175 m	1.4	4.0	2.5	-3.6	-14.9	-32.0
.300 Win Mag.																		
EVO	11.9 g	650	V[m/s]	940	896	852	811	770	731	693	⊕	100 m	-1.0	⊕	- 2.4	-8.6	-18.8	-33.7
231 72 12	184	0.366	E[J]	5257	4777	4319	3913	3528	3179	2857	RZR	194 m	1.0	4.0	3.5	-0.7	-9.0	-21.9
UNI PRO	11.7 g	650	V[m/s]	950	905	862	820	780	740	702	⊕	100 m	-1.0	⊕	-2.3	-8.3	-18.2	-32.7
231 75 44	180	0.367	E[J]	5280	4791	4347	3934	3559	3203	2883	RZR	198 m	1.0	4.0	3.7	-0.2	-8.2	-20.6
9.3x62																		
EVO	18.8 g	600	V[m/s]	740	705	671	638	605	574	544	⊕	100 m	0.0	⊕	- 5.4	-16.9	-35.1	-60.7
231 72 15	291	0.400	E[J]	5147	4672	4232	3826	3441	3097	2782	RZR	154 m	2.0	4.0	0.6	-8.9	-25.1	-48.7
9.3x74 R																		
EVO	18.8 g	600	V[m/s]	710	676	642	610	579	548	519	⊕	100 m	0.2	⊕	- 6.1	-18.9	-39.0	-67.2
231 72 16	291	0.400	E[J]	4739	4296	3874	3498	3151	2823	2532	RZR	148 m	2.2	4.0	- 0.3	-11.0	-29.1	-55.5

SPECIAL EDITION

7 x 64																		
HMK	11.2 g	650	V [m/s]	867	827	787	749	712	677	642	⊕	100 m	-0.7	⊕	-3.3	-10.9	-23.4	-41.2
231 52 40	173		E [J]	4209	3830	3468	3142	2839	2567	2308	RZR	180 m	1.3	4.0	2.8	-2.8	-13.3	-29.1
7 x 65 R																		
HMK	11.2 g	600	V [m/s]	847	807	769	731	695	660	625	⊕	100 m	-0.6	⊕	-3.5	-11.7	-24.9	-43.7
231 52 41	173		E [J]	4017	3647	3312	2992	2705	2439	2188	RZR	175 m	1.4	4.0	2.5	-3.6	-14.8	-31.7
.308 Win.																		
HMK	11.7 g	650	V [m/s]	795	754	714	675	638	602	567	⊕	100 m	-0.3	⊕	-4.5	-14.4	-30.3	-53.0
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 g	600	V [m/s]	856	813	771	731	692	654	617	⊕	100 m	-0.6	⊕	-3.5	-11.6	-24.8	-43.7
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 g	650	V [m/s]	955	909	864	821	779	738	699	⊕	100 m	-1.0	⊕	-2.3	-8.2	-18.2	-32.6
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 JS																		
HMK	12.1 g	600	V [m/s]	832	786	742	699	657	617	578	⊕	100 m	-0.5	⊕	-4.0	-12.9	-27.6	-48.8
231 62 32	187		E [J]	4188	3738	3331	2956	2611	2303	2021	RZR	168 m	1.5	4.0	2.0	-5.0	-17.7	-36.9
8 x 57 JRS																		
HMK	12.1 g	600	V [m/s]	785	740	697	656	616	577	540	⊕	100 m	-0.3	⊕	-4.8	-15.3	-32.3	-56.7
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
9.3 x 74 R																		
HMK	16.7 g	600	V [m/s]	762	724	686	650	615	581	549	⊕	100 m	-0.2	⊕	-5.1	-15.9	-33.3	-58.0
231 62 31	258		E [J]	4848	4377	3929	3528	3158	2819	2517	RZR	157 m	1.8	4.0	0.9	-8.0	-23.3	-46.0

TARGET ELITE

Projectile Article No.	Weight g gr	Barrel length mm BC-Value [1]	V [2] E	0m	50m	100m	150m	200m	250m	300m	⊕	PBR * [3]	50m	100m	150m Trajectory (cm)	200m	250m	300m
.308 Win.																		
Target Elite	10.0	650	V[m/s]	910	873	837	803	768	735	702	⊕	100 m	-0.9	⊕	-2.6	-9.0	-19.6	-34.7
231 75 55	154	0.437	E[J]	4141	3811	3503	3224	2949	2701	2464	RZR	192 m	1.1	4.0	3.5	-0.9	-9.5	-22.6
												Recommended for the following distances						
Target Elite	10.9	650	V[m/s]	800	769	739	710	681	653	626	⊕	100 m	-0.4	⊕	-4.1	-13.0	-27.2	-47.2
231 75 49	168	0.454	E[J]	3488	3223	2976	2747	2527	2324	2136	RZR	169 m	1.6	4.0	2.0	-4.9	-17.1	-35.1
												Recommended for the following distances						
Target Elite	12.3	650	V[m/s]	750	724	699	674	650	626	603	⊕	100 m	-0.2	⊕	-4.9	-15.1	-31.2	-53.5
231 75 50	190	0.550	E[J]	3459	3224	3005	2794	2598	2410	2236	RZR	159 m	1.8	4.0	1.1	-7.2	-21.3	-41.6
												Recommended for the following distances						

TARGET ELITE PLUS

in hand-loaded quality

Projectile Article No.	Weight g gr	Barrel length mm BC-Value [1]	V [2] E	0m	200m	400m	600m	800m	1000m	1200m		200m	400m	600m Trajectory (cm)	800m	1000m	1200m
.223 Rem.																	
Target Elite Plus	4.47	500	V[m/s]	855	663	505	382				100m	-3.9	-111.5				
231 74 61	69	0.300	E[J]	1634	982	570	326				300m	18.8	-49.3				
	Lateral drift (cm)			0.0	16.0	72.4	183.8				500m	73.3	59.8				
											Recommended for the following distances						
.308 Win.																	
Target Elite Plus	10.9	650	V[m/s]	805	676	555	447	362	311		100m	-13.1	-107.8	-333.6	-764.4	-1503.5	
231 74 63	168	0.454	E[J]	3529	2487	1675	1088	715	528		300m	18.6	-44.3	-238.5	-637.5	-1344.9	
	Lateral drift (cm)			0.0	11.2	49.6	126.6	252.2	427.7		500m	67.7	53.8	-91.3	-441.3	-1099.6	
											Recommended for the following distances						
.300 Win. Mag.																	
Target Elite Plus	13.0	650	V[m/s]	870	762	661	568	484	407		100m	-9.8	-82.7	-244.6	-534.5	-992.4	
231 74 62	200	0.555	E[J]	4904	3758	2833	2091	1521	1073		300m	14.4	-34.3	-172.1	-437.7	-871.5	
	Lateral drift (cm)			0.0	8.1	34.1	81.3	158.8	268.9		500m	50.7	38.2	-63.3	-292.7	-690.3	
											Recommended for the following distances						
.338 Lapua Mag.																	
Target Elite Plus	16.2	650	V[m/s]	865	761	664	577	498	425	358	100m	-9.9	-82.9	-243.9	-528.3	-969.2	-1640.0
231 74 64	250	0.595	E[J]	6061	4690	3574	2699	2008	1464	1039	300m	14.5	-34.3	-171.0	-431.0	-847.6	-1494.1
	Lateral drift (cm)			0.0	4.9	20.4	48.2	93.2	155.8	243.7	500m	50.7	38.1	-62.3	-286.2	-666.5	-1276.7
											Recommended for the following distances						

CINESHOT®

The first cartridge especially for cinema ranges

Article No.	Caliber	Grams/Grain
231 67 14	7x64	9.0 g / 139 gr
231 67 11	.308 Win.	9.5 g / 147 gr
231 67 10	.30-06 Spring.	9.5 g / 147 gr

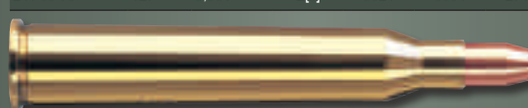
Article No.	Caliber	Grams/Grain
231 72 03	.300 Win. Mag.	9.5 g/ 147 gr
231 67 13	8x57 IS	12.1 g / 187 gr
231 67 12	9.3x62	12.7 g / 196 gr

[1] BC = ballistic coefficient - [2] V = velocity, E = Energy - [3] RZR = Recomended Zero Range / The field of application is just a non-binding recommendation, and is not a substitute for individual experience.
Our ballistic data are established using test barrels. The values may be different when shooting the ammunition in normal commercial guns.
Owing to country-specific legislation and differences in market conditions,not all products are available in every country. Please contact your specialist dealer or distributor.

Projectile Article 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
.22 Hornet																		
MJ	3,0	600	V[m/s]	740	642	552	472	403	351	316	⊕	100 m	0.5	⊕	-8.7	-28.5	-63.6	-118.6
211 63 67	46	0,140	E[J]	821	618	457	334	244	185	150	RZR	134 m	2.4	4.0	-3.1	-21.0	-54.3	-107.5
TMS	3,0	600	V[m/s]	740	650	566	490	423	369	330	⊕	100 m	0.4	⊕	-8.2	-26.7	-59.1	-109.7
211 63 75	46	0,152	E[J]	821	634	481	360	268	204	163	RZR	136 m	2.3	4.0	-2.5	-19.1	-49.7	-98.4
VMS	3,0	600	V[m/s]	740	650	566	490	423	369	330	⊕	100 m	0.4	⊕	-8.2	-26.7	-59.1	-109.7
211 63 83	46	0,152	E[J]	821	634	481	360	268	204	163	RZR	136 m	2.3	4.0	-2.5	-19.1	-49.7	-98.4
.222 Rem.																		
TMS	3,24	600	V[m/s]	970	882	800	722	649	580	516	⊕	100 m	-0.9	⊕	-2.9	-10.6	-24.2	-45.1
211 64 05	50	0,186	E[J]	1524	1260	1037	844	682	545	431	RZR	181 m	1.1	4.0	3.1	-2.6	-14.1	-33.0
MJ	3,4	600	V[m/s]	985	895	810	730	655	584	519	⊕	100 m	-1.0	⊕	-2.8	-10.2	-23.4	-43.9
231 91 46	52	0,183	E[J]	1649	1362	1115	906	729	580	458	RZR	183 m	1.0	4.0	3.2	-2.2	-13.5	-32.0
.223 Rem.																		
TMS	3,6	600	V[m/s]	990	910	834	762	694	629	568	⊕	100 m	-1.0	⊕	-2.5	-9.3	-21.2	-39.4
211 64 72	55	0,207	E[J]	1764	1491	1252	1045	867	712	581	RZR	189 m	1.0	4.0	3.5	-1.3	-11.2	-27.4
5,6 x 50 Magnum																		
TMS	4,1	600	V[m/s]	920	854	791	731	673	618	566	⊕	100 m	-0.8	⊕	-3.1	-10.8	-24.0	-43.7
211 64 99	63	0,240	E[J]	1735	1495	1283	1095	929	783	657	RZR	180 m	1.2	4.0	2.9	-2.8	-13.9	-31.6
5,6 x 50 R Magnum																		
TMS	4,1	600	V[m/s]	900	835	773	713	656	602	551	⊕	100 m	-0.7	⊕	-3.4	-11.6	-25.6	-46.4
211 65 02	63	0,240	E[J]	1661	1429	1225	1042	882	743	622	RZR	175 m	1.3	4.0	2.6	-3.7	-15.6	-34.4
5,6 x 52 R																		
TMS	4,6	600	V[m/s]	870	808	749	693	639	587	538	⊕	100 m	-0.6	⊕	-3.8	-12.7	-27.6	-49.7
211 68 63	71	0,248	E[J]	1741	1502	1290	1105	939	793	666	RZR	170 m	1.4	4.0	2.2	-4.7	-17.6	-37.7
5,6 x 57																		
KS	4,8	600	V[m/s]	970	906	846	788	732	677	622	⊕	100 m	-1.0	⊕	-2.4	-8.8	-19.8	-36.2
211 67 15	74	0,260	E[J]	2258	1970	1718	1490	1286	1100	929	RZR	192 m	1.0	4.0	3.5	-0.9	-9.9	-24.3
.243 Win.																		
KS	6,2	600	V[m/s]	930	875	823	772	723	676	631	⊕	100 m	-0.9	⊕	-2.7	-9.6	-21.2	-38.1
211 68 12	96	0,294	E[J]	2681	2373	2100	1848	1620	1417	1234	RZR	187 m	1.1	4.0	3.2	-1.6	-11.2	-26.2
TMS	6,5	600	V[m/s]	910	867	826	785	746	708	671	⊕	100 m	-0.9	⊕	-2.7	-9.5	-20.6	-36.6
211 68 71	100	0,371	E[J]	2691	2443	2217	2003	1809	1629	1463	RZR	188 m	1.1	4.0	3.3	-1.5	-10.6	-24.6

[1] BC = ballistic coefficient - [2] V = velocity, E = Energy - [3] RZR = Recomended Zero Range / The field of application is just a non-binding recommendation, and is not a substitute for individual experience.
Our ballistic data are established using test barrels. The values may be different when shooting the ammunition in normal commercial guns.
Owing to country-specific legislation and differences in market conditions,not all products are available in every country. Please contact your specialist dealer or distributor.

You will find our product advisor at rws-ammunition.com

Projectile Article 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
6,5 x 55																		
EVO GREEN	6,9	650	V[m/s]	900	857	815	774	735	696	659	⊕	100 m	-0.8	⊕	-2.9	-9.8	-21.4	-38.0
231 88 64	106	0,365	E[J]	2795	2534	2292	2067	1864	1671	1498	RZR	186 m	1.2	4.0	3.2	-1.8	-11.3	-25.8
DK	9,1	740	V[m/s]	870	820	771	724	679	635	593	⊕	100 m	-0.7	⊕	-3.5	-11.6	-25.1	-44.7
211 69 95	140	0,305	E[J]	3444	3059	2705	2385	2098	1835	1600	RZR	175 m	1.3	4.0	2.6	-3.6	-15.0	-32.6
EVO	10,1	600	V[m/s]	780	742	705	669	634	600	567	⊕	100 m	-0.3	⊕	-4.7	-14.8	-31.1	-54.2
231 85 56	156	0,379	E[J]	3072	2780	2510	2260	2030	1818	1624	RZR	160 m	1.7	3.9	1.2	-7.0	-21.3	-42.4
6,5 x 57																		
EVO GREEN	6,9	650	V[m/s]	915	871	828	786	746	707	669	⊕	100 m	-0.9	⊕	-2.7	-9.4	-20.5	-36.5
231 88 65	106	0,360	E[J]	2888	2617	2365	2131	1920	1724	1544	RZR	189 m	1.1	4.0	3.3	-1.3	-10.4	-24.4
KS	7,0	600	V[m/s]	915	863	813	766	719	674	631	⊕	100 m	-0.9	⊕	-2.9	-9.9	-21.7	-39.0
211 70 10	108	0,308	E[J]	2930	2607	2313	2054	1809	1590	1394	RZR	185 m	1.1	4.0	3.1	-1.9	-11.7	-27.0
KS	8,2	600	V[m/s]	870	827	786	746	707	669	632	⊕	100 m	-0.7	⊕	-3.3	-11.0	-23.5	-41.6
211 70 96	127	0,361	E[J]	3103	2804	2533	2282	2049	1835	1638	RZR	179 m	1.3	4.0	2.8	-2.9	-13.5	-29.5
DK	9,1	600	V[m/s]	810	762	715	670	627	585	545	⊕	100 m	-0.4	⊕	-4.4	-14.3	-30.5	-53.8
231 43 52	140	0,305	E[J]	2985	2642	2326	2042	1789	1557	1351	RZR	164 m	1.6	4.0	1.6	-6.3	-20.4	-41.8
6,5 x 57 R																		
EVO GREEN	6,9	650	V[m/s]	850	808	767	727	688	651	615	⊕	100 m	-0.6	⊕	-3.6	-11.8	-25.2	-44.4
231 88 66	106	0,360	E[J]	2493	2252	2030	1823	1633	1462	1305	RZR	174 m	1.4	4.0	2.4	-3.8	-15.2	-32.4
KS	7,0	600	V[m/s]	870	820	772	725	680	637	595	⊕	100 m	-0.7	⊕	-3.4	-11.6	-25.0	-44.5
211 70 29	108	0,308	E[J]	2649	2353	2086	1840	1618	1420	1239	RZR	176 m	1.3	4.0	2.6	-3.5	-14.9	-32.4
KS	8,2	600	V[m/s]	835	793	753	714	676	639	603	⊕	100 m	-0.5	⊕	-3.8	-12.4	-26.4	-46.4
211 71 50	127	0,361	E[J]	2859	2578	2325	2090	1874	1674	1491	RZR	172 m	1.5	4.0	2.3	-4.3	-16.3	-34.3
DK	9,1	600	V[m/s]	775	728	682	639	596	556	518	⊕	100 m	-0.2	⊕	-5.1	-16.2	-34.3	-60.3
211 71 18	140	0,305	E[J]	2733	2411	2116	1858	1616	1407	1221	RZR	157 m	1.8	4.0	0.9	-8.2	-24.2	-48.2
6,5 x 65 RWS																		
KS	8,2	650	V[m/s]	900	856	814	773	733	694	657	⊕	100 m	-0.8	⊕	-2.9	-9.9	-21.4	-38.1
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	650	V[m/s]	870	827	786	746	707	669	632	⊕	100 m	-0.7	⊕	-3.3	-11.0	-23.5	-41.6
211 69 87	127	0,361	E[J]	3103	2804	2533	2282	2049	1835	1638	RZR	180 m	1.3	4.0	2.8	-2.9	-13.5	-29.5
6,5 x 68																		
TMS	6,0	650	V[m/s]	1150	1076	1005	939	876	815	758	⊕	100 m	-1.4	⊕	-1.0	-4.8	-11.8	-22.5
211 71 85	93	0,255	E[J]	3968	3473	3030	2645	2302	1993	1724	RZR	221 m	0.2	3.3	4.0	1.9	-3.5	-12.5
EVO GREEN				Ballistic data and availability please see rws-ammunition.com														
231 88 67																		
KS	8,2	650	V[m/s]	960	914	870	827	786	746	707	⊕	100 m	-1.0	⊕	-2.2	-8.0	-17.8	-32.0
211 72 15	127	0,361	E[J]	3779	3425	3103	2804	2533	2282	2049	RZR	197 m	0.9	4.0	3.6	-0.3	-8.1	-20.4

Projectile Article 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
				.270 Win.														
EVO GREEN	6,2	600	V[m/s]	1063	1002	944	888	835	783	734	⊕	100 m	-1.3	⊕	-1.5	-6.1	-14.2	-26.3
231 88 62	96	0,292	E[J]	3503	3112	2763	2444	2161	1901	1670	RZR	219 m	0.7	4.0	4.5	2.0	-4.1	-14.3
HIT	8,4	650	V[m/s]	921	880	840	802	765	728	693	⊕	100 m	-0.9	⊕	-2.6	-8.9	-19.5	-34.7
231 92 10	130	0,393	E[J]	3567	3256	2967	2705	2461	2229	2019	RZR	192 m	1.1	4.0	3.4	-0.9	-9.5	-22.7
HMK	8,4	650	V[m/s]	955	895	837	782	729	678	630	⊕	100 m	-1.0	⊕	-2.5	-9.1	-20.3	-36.9
211 72 90	130	0,272	E[J]	3831	3364	2942	2568	2232	1931	1667	RZR	190 m	1.0	4.0	3.4	-1.2	-10.4	-25.0
KS	9,7	650	V[m/s]	895	849	805	763	721	681	643	⊕	100 m	-0.8	⊕	-3.0	-10.2	-22.1	-39.4
211 72 82	150	0,345	E[J]	3885	3496	3143	2824	2521	2249	2005	RZR	183 m	1.2	4.0	3.0	-2.2	-12.2	-27.4
EVO	10,0	650	V[m/s]	840	795	751	709	668	629	591	⊕	100 m	-0.6	⊕	-3.8	-12.5	-26.7	-47.1
231 59 72	154	0,335	E[J]	3528	3160	2820	2513	2231	1978	1746	RZR	170 m	1.4	4.0	2.1	-4.6	-16.8	-35.3
				.270 WSM														
EVO GREEN	6,2	600	V[m/s]	1119	1055	995	937	882	828	777	⊕	100 m	-1.4	⊕	-1.1	-5.0	-12.0	-22.6
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/s]	963	920	879	840	798	757	720	⊕	100 m	-1.1	⊕	-2.1	-7.7	-17.2	-31.0
231 92 06	130	0,382	E[J]	3900	3559	3249	2967	2678	2410	2180	RZR	202 m	1.0	4.0	3.9	0.3	-7.1	-18.9
				7 x 57														
ID Classic	10,5	600	V[m/s]	800	755	711	669	629	589	551	⊕	100 m	-0.3	⊕	-4.5	-14.5	-30.7	-54.1
211 85 13	162	0,325	E[J]	3360	2993	2654	2350	2077	1821	1594	RZR	163 m	1.7	4.0	1.5	-6.5	-20.7	-42.0
				7 x 57 R														
EVO GREEN	8,2	600	V[m/s]	820	777	735	695	655	618	581	⊕	100 m	-0.5	⊕	-4.1	-13.2	-28.2	-49.5
231 85 44	127	0,345	E[J]	2757	2475	2215	1980	1759	1566	1384	RZR	167 m	1.5	4.0	1.9	-5.3	-18.2	-37.5
TMR	9,0	600	V[m/s]	780	724	670	618	569	522	479	⊕	100 m	-0.2	⊕	-5.3	-17.1	-36.5	-65.0
211 74 87	139	0,255	E[J]	2738	2359	2020	1719	1457	1226	1032	RZR	154 m	1.9	4.0	0.7	-9.1	-26.5	-53.0
KS	10,5	600	V[m/s]	780	742	705	669	635	601	568	⊕	100 m	-0.3	⊕	-4.7	-14.8	-31.1	-54.1
211 85 48	162	0,381	E[J]	3194	2890	2609	2350	2117	1896	1694	RZR	161 m	1.7	4.0	1.3	-6.9	-21.2	-42.3
ID Classic	10,5	600	V[m/s]	780	736	693	651	611	572	536	⊕	100 m	-0.2	⊕	-4.9	-15.6	-32.9	-57.7
211 85 64	162	0,325	E[J]	3194	2844	2521	2225	1960	1718	1508	RZR	159 m	1.8	4.0	1.2	-7.5	-22.8	-45.6
HMK	11,2	600	V[m/s]	750	713	677	642	609	576	544	⊕	100 m	-0.1	⊕	-5.3	-16.5	-34.4	-59.6
211 74 36	173	0,383	E[J]	3150	2847	2567	2308	2077	1858	1657	RZR	156 m	1.9	4.0	0.8	-8.5	-24.3	-47.5
ID Classic	11,5	600	V[m/s]	750	710	672	635	598	563	530	⊕	100 m	-0.1	⊕	-5.4	-16.8	-35.2	-61.3
211 85 72	177	0,356	E[J]	3234	2899	2597	2319	2056	1823	1615	RZR	155 m	2.0	4.0	0.7	-8.8	-25.1	-49.2

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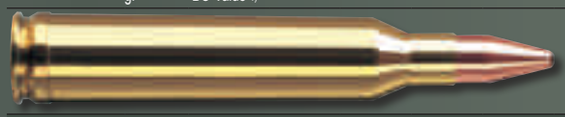
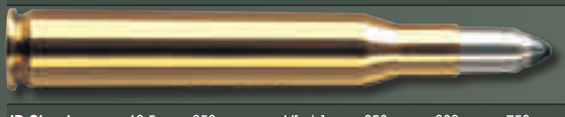
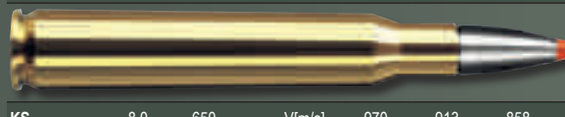
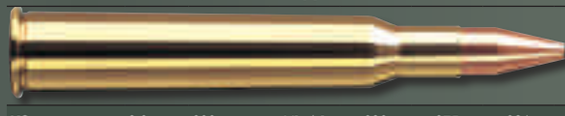
Projectile Article No.	Weight g gr	Barrel length mm BC-Value [1]	V_0 [2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * [3]		50m	100m	150m	200m	250m	300m
																		
7 mm Rem. Mag.																		
EVO GREEN	8,2	650	V[m/s]	960	912	866	821	778	736	696	⊕	100 m	-1.0	⊕	-2.3	-8.1	-18.1	-32.6
231 85 45	127	0,345	E[J]	3779	3410	3075	2764	2482	2221	1986	RZR	198 m	1.0	4.0	3.7	-0.2	-8.1	-20.7
HIT	9,1	650	V[m/s]	940	904	869	835	802	769	737	⊕	100 m	-1.0	⊕	-2.3	-8.0	-17.6	-31.3
231 88 48	140	0,454	E[J]	4020	3718	3436	3172	2927	2691	2471	RZR	200 m	1.0	4.0	3.8	0.0	-7.5	-19.3
EVO	10,3	650	V[m/s]	895	855	817	780	743	708	674	⊕	100 m	-0.8	⊕	-2.9	-9.7	-21.1	-37.3
231 65 30	159	0,399	E[J]	4125	3765	3438	3133	2843	2582	2340	RZR	185 m	1.1	4.0	3.0	-1.9	-11.3	-25.6
KS	10,5	650	V[m/s]	900	859	818	779	741	704	668	⊕	100 m	-0.8	⊕	-2.8	-9.7	-21.1	-37.4
211 85 05	162	0,381	E[J]	4253	3874	3513	3186	2883	2602	2343	RZR	186 m	1.2	4.0	3.1	-1.8	-11.1	-25.4
ID Classic	11,5	650	V[m/s]	890	846	803	762	722	683	646	⊕	100 m	-0.8	⊕	-3.0	-10.3	-22.2	-39.5
211 84 91	177	0,356	E[J]	4555	4115	3708	3339	2997	2682	2400	RZR	183 m	1.2	4.0	3.0	-2.2	-12.2	-27.4
																		
.280 Rem.																		
ID Classic	10,5	650	V[m/s]	850	803	758	714	672	631	592	⊕	100 m	-0.6	⊕	-3.7	-12.2	-26.1	-46.3
211 74 01	162	0,325	E[J]	3793	3385	3016	2676	2371	2090	1840	RZR	173 m	1.4	4.0	2.4	-4.1	-16.0	-34.2
																		
7 x 64																		
KS	8,0	650	V[m/s]	970	913	858	806	755	706	659	⊕	100 m	-1.0	⊕	-2.3	-8.4	-18.8	-34.2
211 75 68	123	0,290	E[J]	3764	3334	2945	2599	2280	1994	1737	RZR	196 m	1.0	4.0	3.7	-0.4	-8.8	-22.1
EVO GREEN	8,2	600	V[m/s]	955	907	861	817	774	732	692	⊕	100 m	-1.0	⊕	-2.3	-8.3	-18.4	-33.0
231 83 21	127	0,345	E[J]	3739	3373	3039	2737	2456	2197	1963	RZR	197 m	1.0	4.0	3.7	-0.3	-8.4	-21.1
HIT	9,1	650	V[m/s]	910	875	840	807	775	743	712	⊕	100 m	-0.9	⊕	-2.6	-8.9	-19.4	-34.2
231 88 46	140	0,454	E[J]	3768	3484	3210	2963	2733	2512	2307	RZR	192 m	1.1	4.0	3.4	-0.9	-9.4	-22.3
EVO	10,3	650	V[m/s]	880	841	803	766	730	695	661	⊕	100 m	-0.8	⊕	-3.0	-10.3	-22.1	-39.0
231 54 31	159	0,399	E[J]	3988	3642	3321	3022	2744	2488	2250	RZR	182 m	1.2	4.0	2.9	-2.4	-12.2	-27.2
KS	10,5	650	V[m/s]	880	839	800	761	724	687	652	⊕	100 m	-0.8	⊕	-3.1	-10.4	-22.4	-39.6
211 84 75	162	0,381	E[J]	4066	3696	3360	3040	2752	2478	2232	RZR	182 m	1.2	4.0	2.9	-2.4	-12.4	-27.7
ID Classic	10,5	650	V[m/s]	880	832	786	742	698	657	616	⊕	100 m	-0.7	⊕	-3.2	-11.0	-23.7	-42.2
211 85 80	162	0,325	E[J]	4066	3634	3243	2890	2558	2266	1992	RZR	179 m	1.3	4.0	2.8	-2.9	-13.7	-30.2
HMK	11,2	650	V[m/s]	850	810	772	734	698	662	628	⊕	100 m	-0.6	⊕	-3.5	-11.5	-24.6	-43.3
211 75 17	173	0,383	E[J]	4046	3674	3338	3017	2728	2454	2209	RZR	176 m	1.4	4.0	2.6	-3.5	-14.5	-31.2
ID Classic	11,5	650	V[m/s]	850	807	766	726	687	649	612	⊕	100 m	-0.6	⊕	-3.6	-11.8	-25.2	-44.5
211 85 99	177	0,356	E[J]	4154	3745	3374	3031	2714	2422	2154	RZR	175 m	1.4	4.0	2.5	-3.7	-15.1	-32.4
																		
7 x 65 R																		
KS	8,0	600	V[m/s]	930	875	821	770	721	674	628	⊕	100 m	-0.9	⊕	-2.8	-9.6	-21.3	-38.3
211 76 30	123	0,290	E[J]	3460	3063	2696	2372	2079	1817	1578	RZR	186 m	1.1	4.0	3.2	-1.7	-11.4	-26.5
EVO GREEN	8,2	600	V[m/s]	930	883	838	794	752	711	671	⊕	100 m	-0.9	⊕	-2.6	-9.0	-19.9	-35.5
231 83 22	127	0,345	E[J]	3546	3197	2879	2585	2319	2073	1846	RZR	191 m	1.1	4.0	3.4	-1.1	-9.9	-23.6
HIT	9,1	600	V[m/s]	889	854	821	788	756	724	693	⊕	100 m	-0.8	⊕	-2.8	-9.6	-20.7	-36.4
231 88 47	140	0,454	E[J]	3596	3318	3067	2825	2600	2385	2185	RZR	188 m	1.2	4.0	3.2	-1.6	-10.6	-24.4
DK	10,0	600	V[m/s]	865	820	776	733	692	652	613	⊕	100 m	-0.7	⊕	-3.4	-11.4	-24.5	-43.4
212 33 63	154	0,338	E[J]	3741	3362	3011	2686	2394	2126	1879	RZR	177 m	1.3	4.0	2.6	-3.3	-14.4	-31.3
EVO	10,3	650	V[m/s]	865	826	789	752	717	682	649	⊕	100 m	-0.7	⊕	-3.2	-10.8	-23.2	-40.8
231 54 32	159	0,399	E[J]	3853	3514	3206	2912	2648	2395	2169	RZR	180 m	1.3	4.0	2.8	-2.8	-13.2	-28.8
KS	10,5	600	V[m/s]	860	820	781	743	706	670	635	⊕	100 m	-0.7	⊕	-3.4	-11.2	-23.9	-42.1
211 84 83	162	0,381	E[J]	3883	3530	3202	2898	2617	2357	2117	RZR	178 m	1.3	4.0	2.7	-3.1	-13.8	-30.0
ID Classic	10,5	600	V[m/s]	870	823	777	733	690	648	608	⊕	100 m	-0.7	⊕	-3.4	-11.3	-24.5	-43.5
211 86 02	162	0,325	E[J]	3974	3556	3170	2821	2500	2204	1941	RZR	177 m	1.3	4.0	2.7	-3.3	-14.4	-31.3
HMK	11,2	600	V[m/s]	830	791	753	716	680	645	611	⊕	100 m	-0.5	⊕	-3.8	-12.4	-26.3	-46.1
211 75 92	173	0,383	E[J]	3858	3504	3175	2871	2589	2330	2091	RZR	172 m	1.5	4.0	2.3	-4.3	-16.2	-34.0
ID Classic	11,5	600	V[m/s]	820	778	738	698	660	623	587	⊕	100 m	-0.5	⊕	-4.0	-13.1	-27.8	-48.9
211 86 10	177	0,356	E[J]	3866	3480	3132	2801	2505	2232	1981	RZR	168 m	1.5	4.0	2.0	-5.1	-17.9	-36.9

Projectile Article 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
				.308 Win.														
EVO GREEN	8,8	600	V[m/s]	870	825	781	738	697	657	619	⊕	100 m	-0.7	⊕	-3.3	-11.2	-24.1	-42.7
231 83 23	136	0,340	E[J]	3330	2995	2684	2396	2138	1899	1686	RZR	177 m	1.3	4.0	2.6	-3.2	-14.1	-30.8
KS	9,7	600	V[m/s]	870	818	769	721	675	630	587	⊕	100 m	-0.7	⊕	-3.5	-11.7	-25.3	-45.2
211 77 03	150	0,298	E[J]	3671	3245	2868	2521	2210	1925	1671	RZR	175 m	1.4	4.0	2.6	-3.6	-15.2	-33.0
ID Classic	9,7	600	V[m/s]	870	819	770	723	678	634	591	⊕	100 m	-0.7	⊕	-3.5	-11.7	-25.2	-44.8
211 77 11	150	0,303	E[J]	3671	3253	2876	2535	2229	1949	1694	RZR	176 m	1.4	4.0	2.6	-3.6	-15.1	-32.7
HIT	10,7	600	V[m/s]	821	785	751	717	684	652	621	⊕	100 m	-0.5	⊕	-3.8	-12.5	-26.3	-46.0
231 88 45	165	0,420	E[J]	3606	3297	3017	2750	2503	2274	2063	RZR	171 m	1.5	4.0	2.2	-4.4	-16.3	-33.9
DK	10,7	600	V[m/s]	800	750	702	656	611	569	528	⊕	100 m	-0.3	⊕	-4.7	-15.1	-32.1	-56.6
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
KS	10,7	600	V[m/s]	800	756	712	671	631	592	554	⊕	100 m	-0.3	⊕	-4.5	-14.5	-30.6	-53.7
211 77 89	165	0,329	E[J]	3424	3058	2712	2409	2130	1875	1642	RZR	163 m	1.7	4.0	1.6	-6.4	-20.5	-41.6
HMK	11,7	600	V[m/s]	780	739	700	662	625	589	555	⊕	100 m	-0.3	⊕	-4.8	-15.1	-31.8	-55.5
211 76 65	180	0,356	E[J]	3559	3195	2867	2564	2285	2029	1802	RZR	160 m	1.7	4.0	1.2	-7.2	-21.8	-43.6
UNI Classic	11,7	600	V[m/s]	780	739	699	660	622	586	551	⊕	100 m	-0.3	⊕	-4.8	-15.2	-32.0	-55.9
211 91 96	180	0,350	E[J]	3559	3195	2858	2548	2263	2009	1776	RZR	160 m	1.8	4.0	1.3	-7.1	-21.9	-43.8
EVO	11,9	600	V[m/s]	775	736	697	660	625	590	557	⊕	100 m	-0.2	⊕	-4.8	-15.3	-32.0	-55.9
231 54 34	184	0,366	E[J]	3574	3223	2891	2592	2324	2071	1846	RZR	159 m	1.8	4.0	1.1	-7.4	-22.1	-43.9
				.30-06														
EVO GREEN	8,8	600	V[m/s]	920	873	827	783	741	699	660	⊕	100 m	-0.9	⊕	-2.7	-9.4	-20.6	-36.8
231 83 24	136	0,340	E[J]	3724	3353	3009	2698	2416	2150	1917	RZR	188 m	1.1	4.0	3.2	-1.5	-10.7	-24.9
KS	9,7	600	V[m/s]	910	857	806	757	709	663	619	⊕	100 m	-0.8	⊕	-3.0	-10.2	-22.3	-40.1
211 77 70	150	0,298	E[J]	4016	3562	3151	2779	2438	2132	1858	RZR	183 m	1.2	4.0	3.0	-2.3	-12.4	-28.2
ID Classic	9,7	600	V[m/s]	910	858	807	759	712	667	623	⊕	100 m	-0.8	⊕	-2.9	-10.1	-22.2	-39.8
211 77 97	150	0,303	E[J]	4016	3570	3159	2794	2459	2158	1882	RZR	184 m	1.2	4.0	3.1	-2.1	-12.2	-27.8
HIT	10,7	600	V[m/s]	851	815	779	745	711	678	647	⊕	100 m	-0.7	⊕	-3.4	-11.2	-23.9	-41.9
231 88 43	165	0,420	E[J]	3874	3554	3247	2969	2705	2459	2240	RZR	177 m	1.3	4.0	2.6	-3.2	-13.9	-29.9
KS	10,7	600	V[m/s]	870	823	778	734	692	651	611	⊕	100 m	-0.7	⊕	-3.4	-11.3	-24.4	-43.2
211 78 00	165	0,329	E[J]	4049	3624	3238	2882	2562	2267	1997	RZR	177 m	1.3	4.0	2.7	-3.2	-14.3	-31.1
DK	10,7	600	V[m/s]	870	818	767	718	671	626	583	⊕	100 m	-0.7	⊕	-3.5	-11.8	-25.6	-45.6
211 78 51	165	0,293	E[J]	4049	3580	3147	2758	2409	2097	1818	RZR	175 m	1.4	4.0	2.5	-3.7	-15.4	-33.5
HMK	11,7	600	V[m/s]	840	798	757	717	678	640	604	⊕	100 m	-0.6	⊕	-3.7	-12.2	-26.1	-45.9
211 77 38	180	0,356	E[J]	4128	3725	3352	3007	2689	2396	2134	RZR	172 m	1.4	4.0	2.3	-4.2	-16.0	-33.8
UNI Classic	11,7	600	V[m/s]	840	797	755	715	675	637	600	⊕	100 m	-0.6	⊕	-3.7	-12.3	-26.2	-46.2
211 92 18	180	0,350	E[J]	4128	3716	3335	2991	2665	2374	2106	RZR	172 m	1.4	4.0	2.3	-4.2	-16.2	-34.1
EVO	11,9	600	V[m/s]	835	794	754	715	678	641	606	⊕	100 m	-0.6	⊕	-3.8	-12.3	-26.3	-46.2
231 54 35	184	0,366	E[J]	4148	3751	3383	3042	2735	2445	2185	RZR	171 m	1.4	4.0	2.2	-4.4	-16.3	-34.2
KS	13,0	600	V[m/s]	780	739	700	662	625	589	555	⊕	100 m	-0.3	⊕	-4.8	-15.1	-31.8	-55.5
211 78 19	200	0,356	E[J]	3955	3550	3185	2849	2539	2255	2002	RZR	160 m	1.7	4.0	1.2	-7.1	-21.8	-43.5
UNI Classic	13,0	600	V[m/s]	790	752	714	678	643	609	576	⊕	100 m	-0.3	⊕	-4.5	-14.3	-30.1	-52.5
231 47 03	200	0,380	E[J]	4057	3676	3314	2988	2687	2411	2157	RZR	163 m	1.7	4.0	1.5	-6.3	-20.1	-40.4

[1] BC = ballistic coefficient - [2] V = velocity, E = Energy - [3] RZR = Recomended Zero Range / The field of application is just a non-binding recommendation, and is not a substitute for individual experience.
Our ballistic data are established using test barrels. The values may be different when shooting the ammunition in normal commercial guns.
Owing to country-specific legislation and differences in market conditions,not all products are available in every country. Please contact your specialist dealer or distributor.

You will find our product advisor at rws-ammunition.com

Projectile Article No.	Weight g gr	Barrel length mm BC-Value [1]	V_0 [2] E	0m	50m	100m	150m	200m	250m	300m	⊕ RZR * [3]		50m	100m	150m	200m	250m	300m
.30 R Blaser																		
EVO GREEN	8,8	600	V[m/s]	930	883	837	792	750	708	668	⊕	100 m	-0.9	⊕	-2.6	-9.1	-19.9	-35.7
231 85 46	136	0,340	E[J]	3806	3431	3083	2760	2475	2206	1963	RZR	190 m	1.1	4.0	3.3	-1.2	-10.1	-23.9
DK	10,7	600	V[m/s]	900	846	795	745	697	651	607	⊕	100 m	-0.8	⊕	-3.1	-10.6	-23.2	-41.7
211 78 94	165	0,293	E[J]	4334	3829	3381	2969	2599	2267	1971	RZR	181 m	1.2	4.0	3.0	-2.6	-13.1	-29.5
UNI Classic	11,7	600	V[m/s]	860	816	774	733	693	654	617	⊕	100 m	-0.7	⊕	-3.4	-11.5	-24.6	-43.5
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	-14.5	-31.4
EVO	11,9	600	V[m/s]	850	808	768	729	691	654	618	⊕	100 m	-0.6	⊕	-3.5	-11.7	-25.0	-44.1
231 61 40	184	0,366	E[J]	4299	3885	3509	3162	2841	2545	2272	RZR	174 m	1.4	4.0	2.4	-3.8	-15.1	-32.2
KS	13,0	600	V[m/s]	800	759	719	680	643	606	572	⊕	100 m	-0.4	⊕	-4.4	-14.1	-29.7	-52.1
211 78 43	200	0,356	E[J]	4160	3745	3360	3006	2687	2387	2127	RZR	164 m	1.7	4.0	1.7	-6.0	-19.6	-40.0
.300 Win. Mag.																		
EVO GREEN	8,8	650	V[m/s]	1015	964	916	869	823	780	737	⊕	100 m	-1.2	⊕	-1.7	-6.7	-15.4	-28.0
231 83 25	136	0,340	E[J]	4533	4089	3692	3323	2980	2677	2390	RZR	211 m	0.8	4.0	4.2	1.2	-5.5	-16.1
HIT	10,7	650	V[m/s]	950	911	873	836	800	765	731	⊕	100 m	-1.0	⊕	-2.2	-7.9	-17.5	-31.2
231 88 44	165	0,420	E[J]	4828	4440	4077	3739	3424	3131	2859	RZR	201 m	1.0	4.0	3.9	0.2	-7.4	-19.1
KS	10,7	650	V[m/s]	970	920	871	824	779	735	693	⊕	100 m	-1.0	⊕	-2.2	-8.0	-17.9	-32.3
211 76 49	165	0,329	E[J]	5034	4528	4059	3633	3247	2890	2569	RZR	198 m	0.9	3.9	3.7	-0.2	-8.1	-20.5
DK	10,7	650	V[m/s]	970	913	859	807	757	709	662	⊕	100 m	-1.0	⊕	-2.3	-8.4	-18.7	-34.0
211 78 78	165	0,293	E[J]	5034	4460	3948	3484	3066	2689	2345	RZR	194 m	0.9	3.9	3.5	-0.6	-9.1	-22.4
UNI Classic	11,7	650	V[m/s]	940	894	849	805	763	723	683	⊕	100 m	-1.0	⊕	-2.4	-8.7	-19.1	-34.3
211 76 57	180	0,350	E[J]	5169	4676	4217	3791	3406	3058	2729	RZR	192 m	1.0	3.9	3.4	-0.9	-9.4	-22.6
EVO	11,9	650	V[m/s]	930	886	843	802	762	722	685	⊕	100 m	-0.9	⊕	-2.5	-8.9	-19.4	-34.7
231 54 33	184	0,366	E[J]	5146	4671	4228	3827	3455	3102	2792	RZR	192 m	1.0	4.0	3.4	-0.9	-9.5	-22.8
.300 WSM																		
EVO	11,9	650	V[m/s]	930	886	843	802	762	722	685	⊕	100 m	-0.9	⊕	-2.5	-8.9	-19.4	-34.7
231 57 41	184	0,366	E[J]	5146	4671	4228	3827	3455	3102	2792	RZR	192 m	1.0	4.0	3.4	-0.9	-9.5	-22.8
8 x 57 JS																		
EVO GREEN	9,0	600	V[m/s]	950	895	843	792	744	697	652	⊕	100 m	-1.0	⊕	-2.5	-8.9	-19.7	-35.7
231 83 27	139	0,299	E[J]	4061	3605	3198	2823	2491	2186	1913	RZR	192 m	1.0	4.0	3.5	-0.9	-9.8	-23.7
HIT	10,4	600	V[m/s]	837	792	750	710	671	634	598	⊕	100 m	-0.5	⊕	-3.8	-12.5	-26.7	-46.9
231 92 08	160	0,338	E[J]	3632	3252	2917	2614	2334	2084	1854	RZR	171 m	1.5	4.0	2.2	-4.5	-16.7	-34.9
DK	11,7	600	V[m/s]	820	767	717	668	622	577	534	⊕	100 m	-0.4	⊕	-4.4	-14.3	-30.5	-54.1
212 34 95	180	0,282	E[J]	3934	3441	3007	2610	2263	1948	1668	RZR	164 m	1.6	4.0	1.6	-6.2	-20.5	-42.1
HMK	12,1	600	V[m/s]	800	755	712	670	629	590	553	⊕	100 m	-0.3	⊕	-4.5	-14.5	-30.7	-54.0
211 79 16	187	0,326	E[J]	3872	3449	3067	2716	2394	2106	1850	RZR	162 m	1.6	4.0	1.5	-6.5	-20.8	-42.0
TMR	12,7	600	V[m/s]	790	740	691	644	600	557	516	⊕	100 m	-0.3	⊕	-4.9	-15.7	-33.4	-59.0
211 79 32	196	0,288	E[J]	3963	3477	3032	2634	2286	1970	1691	RZR	158 m	1.7	4.0	1.1	-7.8	-23.4	-47.1
ID Classic	12,8	600	V[m/s]	800	759	720	681	644	608	573	⊕	100 m	-0.4	⊕	-4.4	-14.0	-29.6	-51.9
211 92 26	198	0,360	E[J]	4096	3687	3318	2968	2654	2366	2101	RZR	164 m	1.6	4.0	1.6	-6.0	-19.6	-39.8
EVO	13,0	600	V[m/s]	730	690	652	615	579	544	511	⊕	100 m	0.1	⊕	-5.9	-18.2	-37.9	-65.9
231 62 01	200	0,350	E[J]	3464	3095	2763	2458	2179	1924	1697	RZR	151 m	2.1	4.0	0.2	-10.2	-27.8	-53.8

Projectile Article 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
8 x 57 JRS																		
EVO GREEN	9,0	600	V[m/s]	865	814	764	717	671	627	584	⊕	100 m	-0.6	⊕	-3.6	-11.9	-25.7	-45.8
231 83 26	139	0,299	E[J]	3367	2982	2627	2313	2026	1769	1535	RZR	173 m	1.3	4.0	2.4	-4.0	-15.8	-33.9
HIT	10,4	600	V[m/s]	808	764	722	680	639	600	562	⊕	100 m	-0.4	⊕	-4.3	-14.0	-29.6	-52.1
231 92 07	160	0,338	E[J]	3385	3026	2703	2398	2117	1867	1638	RZR	164 m	1.6	4.0	1.7	-6.0	-19.7	-40.2
DK	11,7	600	V[m/s]	760	710	661	615	570	528	488	⊕	100 m	-0.1	⊕	-5.6	-17.6	-37.3	-65.8
212 35 09	180	0,282	E[J]	3379	2949	2556	2213	1901	1631	1393	RZR	153 m	2.0	4.0	0.5	-9.6	-27.2	-53.7
HMK	12,1	600	V[m/s]	770	726	684	643	603	565	528	⊕	100 m	-0.2	⊕	-5.1	-16.1	-33.9	-59.4
211 79 83	187	0,326	E[J]	3587	3189	2831	2501	2200	1931	1687	RZR	157 m	1.8	4.0	1.0	-8.1	-23.8	-47.3
TMR	12,7	600	V[m/s]	730	682	636	591	548	509	471	⊕	100 m	0.1	⊕	-6.2	-19.5	-41.0	-72.0
211 80 09	196	0,288	E[J]	3384	2954	2569	2218	1907	1645	1409	RZR	148 m	2.2	4.0	-0.1	-11.4	-30.9	-59.8
ID Classic	12,8	600	V[m/s]	750	711	673	636	600	565	532	⊕	100 m	-0.1	⊕	-5.4	-16.8	-35.0	-61.0
211 92 34	198	0,360	E[J]	3600	3235	2899	2589	2304	2043	1811	RZR	155 m	1.9	4.0	0.7	-8.7	-25.0	-49.0
EVO	13,0	600	V[m/s]	720	680	642	606	570	536	503	⊕	100 m	0.2	⊕	-6.1	-18.9	-39.3	-68.2
231 62 00	200	0,350	E[J]	3370	3006	2679	2387	2112	1867	1645	RZR	149 m	2.2	4.0	-0.1	-10.9	-29.3	-56.2
8 x 68 S																		
EVO GREEN	9,0	650	V[m/s]	996	939	887	841	797	754	712	⊕	100 m	-1.1	⊕	-2.0	-7.5	-16.8	-30.4
231 85 47	139	0,299	E[J]	4460	3968	3540	3183	2858	2558	2281	RZR	206 m	0.9	4.0	4.0	0.5	-6.8	-18.4
HIT	10,4	650	V[m/s]	962	913	866	821	778	735	694	⊕	100 m	-1.0	⊕	-2.2	-8.1	-18.1	-32.6
231 92 09	160	0,338	E[J]	4798	4322	3889	3495	3138	2801	2497	RZR	199 m	1.0	4.0	3.8	-0.1	-8.0	-20.5
KS	11,7	650	V[m/s]	990	936	884	833	785	738	693	⊕	100 m	-1.1	⊕	-2.0	-7.6	-17.2	-31.3
211 81 49	180	0,310	E[J]	5734	5125	4572	4059	3605	3186	2809	RZR	202 m	0.9	4.0	3.9	0.3	-7.3	-19.4
DK	11,7	650	V[m/s]	945	887	832	779	728	679	632	⊕	100 m	-0.9	⊕	-2.6	-9.3	-20.6	-37.2
212 35 17	180	0,282	E[J]	5224	4603	4050	3550	3100	2697	2337	RZR	190 m	1.1	4.0	3.4	-1.3	-10.6	-25.2
HMK	12,1	650	V[m/s]	970	919	870	823	777	733	690	⊕	100 m	-1.0	⊕	-2.2	-8.0	-17.9	-32.4
211 81 14	187	0,326	E[J]	5692	5110	4579	4098	3653	3251	2880	RZR	199 m	0.9	4.0	3.7	-0.1	-8.0	-20.5
EVO	13,0	650	V[m/s]	915	869	825	783	741	701	662	⊕	100 m	-0.9	⊕	-2.7	-9.5	-20.7	-36.9
231 65 22	200	0,350	E[J]	5442	4909	4424	3985	3569	3194	2849	RZR	187 m	1.1	3.9	3.2	-1.6	-10.9	-25.1
.338 Lapua Magnum																		
SPEED TIP PRO	16,2	650	V[m/s]	885	857	830	804	778	752	727	⊕	100 m	-0.8	⊕	-2.7	-9.3	-19.8	-34.8
231 94 51	250	0,566	E[J]	6344	5949	5580	5236	4903	4581	4281	RZR	190 m	1.2	4.0	3.3	-1.2	-9.8	-22.7

[1] BC = ballistic coefficient - [2] V = velocity, E = Energy - [3] RZR = Recomended Zero Range / The field of application is just a non-binding recommendation, and is not a substitute for individual experience.
Our ballistic data are established using test barrels. The values may be different when shooting the ammunition in normal commercial guns.
Owing to country-specific legislation and differences in market conditions,not all products are available in every country. Please contact your specialist dealer or distributor.

You will find our product advisor at rws-ammunition.com

Projectile Article 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
				9,3 x 62														
EVO GREEN	11,9	600	V[m/s]	880	830	782	736	691	648	607	⊕	100 m	-0.7	⊕	-3.3	-11.1	-24.1	-43.0
231 83 28	184	0,312	E[J]	4608	4099	3639	3223	2841	2498	2192	RZR	177 m	1.3	3.9	2.6	-3.2	-14.3	-31.1
DK	14,6	600	V[m/s]	800	745	693	642	594	547	504	⊕	100 m	-0.3	⊕	-4.8	-15.6	-33.4	-59.5
211 81 65	225	0,266	E[J]	4672	4052	3506	3009	2576	2184	1854	RZR	160 m	1.7	4.0	1.2	-7.6	-23.3	-47.4
KS	16,0	600	V[m/s]	800	754	710	667	626	586	548	⊕	100 m	-0.3	⊕	-4.5	-14.6	-30.9	-54.4
211 81 81	247	0,320	E[J]	5120	4548	4033	3559	3135	2747	2402	RZR	162 m	1.7	4.0	1.5	-6.5	-20.8	-42.4
HIT	16,2	600	V[m/s]	749	715	681	649	617	587	557	⊕	100 m	-0.1	⊕	-5.2	-16.2	-33.7	-58.3
231 94 68	250	0,414	E[J]	4546	4142	3758	3413	3085	2792	2514	RZR	156 m	1.9	4.0	0.8	-8.2	-23.7	-46.3
HMK	16,7	600	V[m/s]	760	721	684	648	613	580	547	⊕	100 m	-0.1	⊕	-5.1	-16.1	-33.6	-58.4
211 82 03	258	0,372	E[J]	4823	4341	3907	3506	3138	2809	2498	RZR	157 m	1.9	4.0	0.9	-8.0	-23.5	-46.3
TMR	18,5	600	V[m/s]	695	651	609	569	530	494	459	⊕	100 m	0.4	⊕	-7.0	-21.6	-45.0	-78.5
211 82 11	285	0,309	E[J]	4468	3920	3431	2995	2598	2257	1949	RZR	144 m	2.4	4.0	-1.0	-13.6	-34.9	-66.4
EVO	18,8	600	V[m/s]	730	695	661	628	597	566	536	⊕	100 m	0.0	⊕	-5.7	-17.6	-36.3	-62.8
231 54 36	291	0,400	E[J]	5009	4540	4107	3707	3350	3011	2701	RZR	152 m	2.0	4.0	0.3	-9.6	-26.4	-50.8
UNI Classic	19,0	600	V[m/s]	740	710	680	651	623	596	569	⊕	100 m	-0.1	⊕	-5.2	-16.3	-33.7	-57.9
211 92 42	293	0,465	E[J]	5202	4789	4393	4026	3687	3375	3076	RZR	156 m	2.0	4.0	0.8	-8.2	-23.6	-45.8
				9,3 x 64														
UNI Classic	19,0	650	V[m/s]	785	754	723	693	664	636	608	⊕	100 m	-0.3	⊕	-4.4	-13.8	-28.9	-50.0
211 92 50	293	0,465	E[J]	5854	5401	4966	4562	4189	3843	3512	RZR	165 m	1.7	4.0	1.7	-5.8	-18.8	-37.9
				9,3 x 74 R														
EVO GREEN	11,9	600	V[m/s]	885	835	787	740	695	652	611	⊕	100 m	-0.7	⊕	-3.2	-10.9	-23.8	-42.4
231 83 29	184	0,312	E[J]	4660	4148	3685	3258	2874	2529	2221	RZR	178 m	1.2	3.9	2.7	-3.1	-13.9	-30.5
DK	14,6	600	V[m/s]	785	731	679	629	581	536	493	⊕	100 m	-0.2	⊕	-5.1	-16.5	-35.2	-62.4
211 81 57	225	0,266	E[J]	4498	3901	3366	2888	2464	2097	1774	RZR	157 m	1.8	4.0	0.9	-8.4	-25.1	-50.3
KS	16,0	600	V[m/s]	750	706	663	622	582	545	509	⊕	100 m	0.0	⊕	-5.6	-17.5	-36.7	-64.1
211 82 97	247	0,320	E[J]	4500	3987	3517	3095	2710	2376	2073	RZR	154 m	2.0	4.1	0.6	-9.3	-26.4	-51.8
HIT	16,2	600	V[m/s]	710	677	645	614	584	555	526	⊕	100 m	0.2	⊕	-6.1	-18.7	-38.5	-66.2
231 94 67	250	0,414	E[J]	4084	3714	3371	3055	2763	2496	2242	RZR	149 m	2.2	4.0	-0.1	-10.7	-28.5	-54.3
HMK	16,7	600	V[m/s]	730	693	656	621	587	554	523	⊕	100 m	0.1	⊕	-5.8	-17.9	-37.2	-64.5
211 82 62	258	0,372	E[J]	4450	4010	3593	3220	2877	2563	2284	RZR	151 m	2.0	4.0	0.2	-10.0	-27.3	-52.6
TMR	18,5	600	V[m/s]	695	651	609	569	530	494	459	⊕	100 m	0.4	⊕	-7.0	-21.6	-45.0	-78.5
211 82 70	285	0,309	E[J]	4468	3920	3431	2995	2598	2257	1949	RZR	144 m	2.4	4.0	-1.0	-13.6	-34.9	-66.4
EVO	18,8	600	V[m/s]	700	666	633	601	570	540	511	⊕	100 m	0.3	⊕	-6.4	-19.6	-40.4	-69.5
231 54 37	291	0,400	E[J]	4606	4169	3766	3395	3054	2741	2455	RZR	147 m	2.3	4.0	-0.4	-11.6	-30.4	-57.6
UNI Classic	19,0	600	V[m/s]	695	666	637	610	582	556	531	⊕	100 m	0.3	⊕	-6.3	-19.2	-39.4	-67.5
211 92 77	293	0,465	E[J]	4589	4214	3855	3535	3218	2937	2679	RZR	148 m	2.3	4.0	-0.3	-11.2	-29.4	-55.5
				.375 H&H Mag.														
KS	19,4	650	V[m/s]	765	729	695	661	629	597	565	⊕	100 m	-0.2	⊕	-4.9	-15.4	-32.1	-55.7
211 84 59	299	0,403	E[J]	5677	5155	4685	4238	3838	3457	3096	RZR	159 m	1.8	4.0	1.1	-7.4	-22.1	-43.7
UNI Classic	19,5	650	V[m/s]	760	717	676	636	598	561	526	⊕	100 m	-0.1	⊕	-5.3	-16.6	-34.8	-60.9
211 83 78	301	0,334	E[J]	5632	5012	4456	3944	3487	3069	2698	RZR	155 m	1.9	4.0	0.7	-8.7	-24.9	-49.0

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