

THE AMMUNITION COUNTS

THE Amminition COUNTS

For more than a century, RWS has RUAG Ammotec GmbH. been making all kinds of rifle ammunition exclusively in Germany, at its plant profit from those long years of experiin Stadeln. The origins go back to the ence and the know-how of our staff 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- the world, ever since their introduction. Gesellschaft" (RWS), which had been founded in Troisdorf in 1886. RWS was a part of Dynamit Nobel AG from 1931 ammunition from RWS up to the spring of 2002. And since then, a wide range of explo- ing requirements and sive-based products has been manu- is the guarantee for a actured here, now under the control of

I ACCURATE I BORE-FRIENDLY I EFFECTIVE I INNOVATIVE 1

That's why generations of hunters have trusted RWS.

Shooters who select RWS ammunition - 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 Generations of hunters have trusted RWS quality. Because they know:

fulfills the most exactperfect hunt.



www.rws-ammunition.com

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 sale after it has met all the criteria relevant to safety and performance. For reliability - RWS.

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.

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.

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





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.

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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.

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.



6 RELIABLE I ACCURATE I **BORE-FRIENDLY** I EFFECTIVE I INNOVATIVE

Flaser Germany Mod. K95

· Plasel

HARMONY

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.

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 noncorrosive 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.

ACCERT OF COLOR

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.

... when the gun and ammunition

8 RELIABLE I ACCURATE I BORE-FRIENDLY I EFFECTIVE I INNOVATIVE

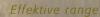
EFFECTIVE

... 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.



10 RELIABLE I ACCURATE I BORE-FRIENDLY I EFFECTIVE I INNOVATI

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 ...



) Forum! Market Research, Gen

SOURCES

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

France: Analysis of emotional cu

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 distances²

ment, 2007 2) GI

nd & Comn

novative products.

ALC: NO.

einz 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 ave 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

MANTEL

2011



best performance from his ammunition. and the load is a combination of compo-But only the best ammunition will guar- nents that have been matched together antee a humane and successful hunt. RWS rifle cartridges meet the most parameters specified by proof laws has demanding requirements for reliability the highest priority during manufacture and performance.

This is ensured by a manufacturing hallmark of all RWS ammunition. process that puts precision first. Cartridge and components are subject to Our staff are another quality factor in this over 100 production steps; final assembly of the cartridge is only approved after all the components have met and passed these stringent controls.

PERFECTED

Anyone who goes hunting expects the Here too quality assurance is placed first with great care. Conformity with the as well as the high demands of ballistic performance and accuracy that is the

> high-quality production process. They are often enthusiastic hunters themselves, and their experience is continually fed back into the manufacture of RWS rifle cartridges.



www.rws-ammunition.com



First draw

A lot more than just an empty case

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

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



Nitrocellulose powder

Boxer primer

THE SMALLEST DETAIL **RWS** cartridges

The perfect cartridge is distinguished by the high gua- ridges of the same caliber. Powder is added in very fine through the case and powder to the projectile. This is to ensure maximum accuracy. guaranteed by our high quality method of making up a load.

PERFECT

DOWN TO

First, every case receives the primer that has been per- tests are concluded by using a standard chamber as fectly matched to it. Then, the groove between primer a gauge to make a precise check on the ability of the and case is sealed with a colored lacquer, so that one round to chamber in rifles of the specific caliber. can distinguish between heavy and light bullets in cart-

lity of its components and the fact that they have been doses for absolutely consistent ballistics, the bullet optimally matched to one another. RWS cartridges ful- is precisely seated and crimped to ensure it is firmly fill all aspects of these requirements - from the primer seated. Finally the overall cartridge length is checked

> Every one of these steps is accompanied by electronic and visual checks. Before the cartridge is packed, the











Second draw

Bump

Form head

primer cup, flash hole

Form shoulder. Turn rim and overall length

The demanding production procedure ensures the 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 regu-



lation 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.

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.

tion plant using advance production techniques. Primer production processes include stamping and drawing sensitivity of the primer. out the cup, loading the primer compound, drying and This results in a primer that offers excellent performance pressing and finally fitting the anvil. We use the most and functionality and a high level of handling safety. modern optoelectronic test equipment to check for any The latest primers with Super Clean Technology (Sintox) deviations in the assembly and dimensional accuracy. are insensitive to temperature changes and guarantee Ignition sensitivity is adjusted so precisely that a deep perfect performance and reliability even under extreme and central blow from the firing pin will produce 100% conditions, from -60 to +60 Celsius. As there is no lead ianition.

mercury free Sinoxid technology based on the sub- ranges. stances Trizinate and Tetrazene. Trizinate has excellent Super Clean - tomorrow's world standard.

RWS primers are manufactured in a modern produc- storage properties and outstanding ignition characteristics and the addition of Tetrazene adjusts the ignition

in this primer there is no heavy metal pollution to affect By 1918 RWS had developed the now world famous the user or nearby range officers when used in indoor

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



ustion of the powder and thus helps to achieve accuracy and heavy-metal. reliability. Here in Fürth we are setting world standards for primer

Dr. Ulrich Bley (Head of the Chemistry Laboratory at RWS) compounds. The SINOXID compound is now the standard for just - primer technology is part of our core competence. The appa- about every high-quality rifle cartridge. But we also produce the rently smallest part of the cartridge is a determining factor for the SINTOX primer compound, better known as Super Clean. We think performance of the entire assembly. Good ignition means steady that the future belongs to this primer compound which is free of

CASE I PRIMER I POWDER I PROJECTILE I CALIBER I PACKAGE I BALLISTICS 17

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).

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

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



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



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

laboratory and field. We conduct tests on gelatine Pages 30-38 show the results of test firing .30 cal. 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

ABSOLUTELY EFFECTIVE

30R

300 W

Projectiles from RWS

exclusively uses bullets made in its own produc- times and depending on the bullet type one or two core tion facilities. RWS has over a century's experience in sections are pressed in and specific features such as designing and producing its own bullets and this knowl- cannelures are applied. All bullets are then subject to a edge is at the heart of today's production.

30R

300 Wi

than just putting a core into a jacket and to be able to and 11 quality checks. Rigourous tests during the loadmanufacture such a wide range of quality projectiles, ing procedure ensures that the highest quality RWS RWS has a highly complex production facility. In this specifications and standards are vigorously maintained. plant the most up to date technology ensures the fusion RWS feels it has a duty to maintain the very highest

is drawn from one of six different hardness grades of

RWS is the only manufacturer of rifle cartridges that lead wire; the jacket cup is drawn and trimmed several 100% visual inspection.

Manufacturing our special bullets involves a lot more Production can involve up to 14 manufacturing steps of core and jacket. standards of production and performance, its quality aspirations are continually under review.



18 PRECISION PERFECTE

century, my family has been looking after the RWS test hunt-ing grounds south-west of Nuremberg. As a result, I have been carrying out field tests of new developments for some consid-erable time. And have observed time and again that the spe-

Friedrich Müller (Test Firing Foreman at RWS) – For half a cial bullets have an absolute advantage with respect to the initial









Our development programme includes testing in the to evaluate the performance of the bullet in game.

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.

Primer groove lacquer seal

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

Bullet with the lightest weight:



Special situation 8 x 57 IS / IRS RWS has two different caliber versions (IS, IRS) of the tion between these two calibers, the cartridges with the 8 x 57 cartridge. Although they both have a case length larger bullet diameter have the additional designation of 57 mm, there are slight differences in the bore and letter "S". RWS cartridges in the "S" caliber are also groove diameters. In order to make a reliable distinc- identified by black lacquer in the groove.

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	.222228	.22 Hornet, .222 Rem., .223 Rem.
6 mm		.243	.243 Win.
6,5 mm	6,5 x 65 RWS	.257264	
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 57IR	.318	
8 mm S	8 x 57IRS	.323	
9 mm		.358	
9,3 mm	9,3 x 62	.364366	
9,5 mm		.375	.375 H&H Mag.
10,3 mm	10,3 x 60R	.413	
10,75 mm		.423	.404 Rimless

THE RIGHT CHOICE

Understanding calibers

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

use the Imperial system where calibers are expressed 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.

Examples within a caliber group:

Bullet with a medium weight:

Bullet with the heaviest weight:





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

22 Hornet - 5,6x57

8x57 JR - 8x68 S





INFORMATION ON THE SPOT

The package

on the spot when you are out hunting. other practical information for the hunt.

Every RWS cartridge package is A special fold-out card on the back of printed with a clear summary of the the package presents a detailed picture ballistic information, so that it is available of the bullet, its effect on game, and



can see a picture of the operation of the specific projectile. from hunters for hunters.

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

5

- 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







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



- 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.

50 m 📥 on target up to 209 m, without altering the aim

The trajectory

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

Point-blank range – PBR

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

Layout and interpretation of the tables: see P. 58 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.

RELIABLY ON TARGET

Basic ballistics

PRECISION PERFECTED

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

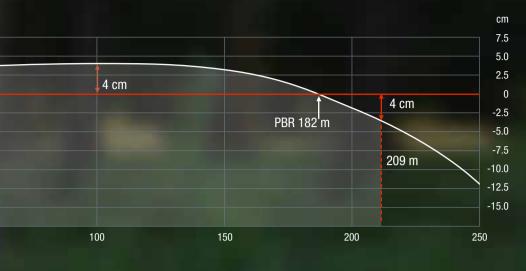
Internal ballistics covers all that happens as the shot is Muzzle ballistics refers to what happens around the lands (the raised sections of the barrel cross-section) of resistance and atmospheric parameters. (deeper sections of the barrel cross-section) and the lands impart a stabilizing spin to the bullet as it travels down the bore.

made, such as gas pressure and bullet velocity within muzzle as the bullet leaves the barrel. Exterior ballisthe barrel. Rotationless flight (freebore) is that short dis- tics deals with the free flight of the projectile after it has tance where the bullet is no longer held in the neck of left the muzzle and before it reaches the target, taking the cartridge, but has also not yet been pressed into the into account all exterior influences, such as gravity, air the barrels, so it has not yet started to spin. The grooves Finally, target ballistics concerns the effect of the projectile on the target.

Acquiring ballistic data

lute values, but average values derived from a large ated under constant test conditions in our physical number of measurements with guns from various ballistics laboratories. As a rule, the values shown in manufacturers. Different barrel lengths, for instance, our ballistics data apply to a horizontal shot at mean can effect these values quite significantly. The test- sea level.

The ballistic data for RWS cartridges are not abso- firing results for all cartridges are acquired and evalu-



V_a 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: $E_{100} = 1,000 \text{ J}$ when hunting roe deer with a rifle, and $E_{100} = 2,000 \text{ J}$ 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 the new updated product advisor now available as an Iphone App. homepage a new look, improved access and made it more Our website is updated daily and continues to evolve. We have 'user friendly'. Existing users of the site will appreciate the a number of new ideas and projects that will appear on the substantial improvements and new users should find the website in the next few months, please visit us and browse at: site comprehensive, informative, direct and easy to use. www.rws-ammunition.com Our aim is to offer more than just basic product information e.g.



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.

www.rws-ammunition.com

RWS offers a lot of new online services

Service and communication is an important part of our ... and, of course, the popular RWS sighting-in Company philosophy and this is reflected in our new target. website. You can already find:

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

Get online and register for the RWS newsletter, at

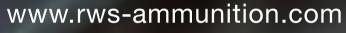


- a free Iphone App for the RWS product advisor

attractive special offers for specific interest groups

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.



EVOLUTION | UNI PROFESSIONAL | ID CLASSIC | UNI CLASSIC | DOPPELKERN | H-MANTEL | KEGELSPITZ 29 SOFT POINT | BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS

> If hunting is extremely varied then so Materials, bullet geometry, construction, mass and effect characteristics are all 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 ation.

TAILOR-MADE

ojectiles

possess the characteristics to deterare the demands made on ammunition. mine accuracy, trajectory, energy and deformation capability.

Every hunter directly from the dedicafactors that must be taken into account tion which RWS applies to the development and production of its projectiles.

> Bullets from RWS guarantee accuracy, performance and reliability for every hunting situ-



www.rws-ammunition.com

30 EVOLUTION | UNI PROFESSIONAL | ID CLASSIC | UNI CLASSIC | DOPPELKERN | H-MANTEL | KEGELSPITZ SOFT POINT | BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS

EVOLUTION

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.

Sharp edge for cutting hair at point of impact Lead core bonded (=fused) with the jacket for excellent penetration

> i**d X** Tip[®] or optimal response

in the game's body

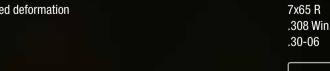
Ballistic calotte for flight stabili and precision at long distance

Nickel-plated Tombak jacket for increased barrel life

Cannelure for a solid bullet seat

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







Simulated wound cavity in a gelatine block

Calibers:

.270 Win.

.270 WSM

7x64

7mm Rem.Mag.

.30 R Blaser .300 Win.Mag.

. 300 WSM

8x57 JS

8x57 JRS

8x68 S

9,3x62

9,3x74 R

EVOLUTION I UNI PROFESSIONAL I ID CLASSIC I UNI CLASSIC I DOPPELKERN I H-MANTEL I KEGELSPITZ 31 SOFT POINT I BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS

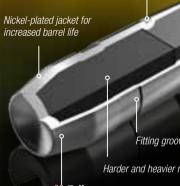
UNI PROFESSIONA The Next Generation

100 years of successful experience in the development of hunting bullets form the foundation for the latest innovation from RWS. An 18 % reduction in air resistance compared with the UNI Classic results in a noticeably flatter trajectory and extends the usable range for hunting. At the same time, the impact behavior on the target has been further improved.

Operating principle of the UNI Professional - The front core disintegrates and generates a limited quantity of fragments

- The rear core will only expand slightly, and will thus
- usually ensure an exit wound - The sharp edge ensures the desired clean cut
- The Uni Pro can be used universally on heavy game
- and causes little damage to the meat

Tail groove for a stable retained mass and an assured exit wound



UNI precision V-Tail for excellent aerodynamic stability and accuracy at long distances

The features at a glance:

- Optimized BC value for a flatter trajectory
- High projectile velocity and flight stability
- Longer usable hunting range - Reliable effect on the game
- Available as RWS Silver Selection



mentation and a hig

Ballistically optimised bullet shape for reduced air resistance and flat traject

Sharp rim for a a clean-cut exit wound

Fitting groove for controlled deformation process

Harder and heavier rear core for extreme penetration

Calibers: .308 Win.

.30-06 .300 Win. Mag

30-06



32 EVOLUTION | UNI PROFESSIONAL | **ID CLASSIC** | UNI CLASSIC | DOPPELKERN | H-MANTEL | KEGELSPITZ SOFT POINT | BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS

EVOLUTION I UNI PROFESSIONAL I ID CLASSIC I **UNI CLASSIC** I DOPPELKERN I H-MANTEL I KEGELSPITZ 33 SOFT POINT I BIONIC YELLOW L FULL METAL JACKET I HUNTING MATCH I EXPERTS TRUST RWS



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.

> Soft tipped core for Sharp edge for controlled fragmentatior cutting hair and high effectiveness at point of impact

Harder tail core for excellent nenetration

Torpedo-shaped tail

for high flight stability

kel-plated steel jacket for increased barrel life

Tail constriction for a mass-stable residual body and a certain bullet exit wound

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
7×64	8v57 IR





Simulated wound cavity in a gelatine block



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.

Tail constriction for a mass-stable residual body and a certair Harder and heavier bullet exit wound tail core for extreme

Nickel-plated steel jacket for increased barrel life for high flight stability

The features at a glance:

- UNIVERSAL for heavy game

- Rearward neck limits the tearing-off of the jacket strips
- Little damage to the meat



Soft tipped core for controlled fragmentation and high effectivenes

arp edge for cutting hair at point of impact

- 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

Calibers:

.308 Win. .30-06 .30 R Blaser .300 Win. Mag. 9,3x62 9.3x64 9,3x74 R .375 H&H Mag.



34 EVOLUTION I UNI PROFESSIONAL I ID CLASSIC I UNI CLASSIC I DOPPELKERN I H-MANTEL I KEGELSPITZ SOFT POINT | BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS EVOLUTION | UNI PROFESSIONAL | ID CLASSIC | UNI CLASSIC | DOPPELKERN | H-MANTEL | KEGELSPITZ 35 SOFT POINT | BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS

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.



Sharp edge for reliable tracking signs Tail constriction for a mass-stable residual body and a certain bullet exit wound

Long bullet cylinder for highest precision

extreme penetrat

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
7x64	8x68 S
7x65 R	9,3x62
.308 Win.	9,3x64
.30-06	9,3x74 R
.30 R Blaser	

.30-06



Simulated wound cavity in a gelatine block



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.

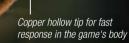
Tip core for controlled fragmentation and high effectiveness



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





H-shaped constriction for reliable part fragmentation

lew crimp cannelure for optimum bullet seating

Calibers: .270 Win.

7x57R 7x64 7x65R .308 Win. .30-06

8x57 JS 8x57 JRS 8x68 S 9.3x62 9.3x74 R



H8x57 JS

36 EVOLUTION | UNI PROFESSIONAL | ID CLASSIC | UNI CLASSIC | DOPPELKERN | H-MANTEL | KEGELSPITZ SOFT POINT | BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS EVOLUTION | UNI PROFESSIONAL | ID CLASSIC | UNI CLASSIC | DOPPELKERN | H-MANTEL | KEGELSPITZ 37 **SOFT POINT | BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS**



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.



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.

Ballistically optimized cone shape for an extended trajectory Tail constriction for a mass-stable residual body and a certain bullet exit wound



Lead core for balanced deformation aviour with different types of game



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



- 5,6x57 .243 Win. 6,5 x 55 6,5x57 6,5x57 R 6,5x65 RWS 6,5x65 R RWS 6,5x68
- .270 Win. .30-06 .270 WSM .30 R Blaser 7x57 .300 Win. Mag 7x57 R 8x68 S 7 mm Rem. Mag. 9,3x62 9,3x74 R 7x64 7x65 R .375 H&H Mag. .308 Win.

243 Wir



Simulated wound cavity in a gelatine block

to match the body of the game Tombak-plated steel jacket

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

Round or pointed nose for high stability

Lead core for optimum deformation

Calibers:

.22 Hornet .222 Rem. .223 Rem. 5,6x50 Magnum 5,6x50 R Magnum 5,6x52 R .243 Win. 6,5x54 Mannl. Sch.

6,5x57 6,5x57 R 6.5x68 .270 Win. 7x57 R 7 mm Rem. Mag. 7x64 7x65 R

8x57 JS 8x57 JRS 9.3x62 9.3x74 R .404 Rimless



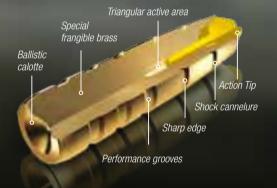


38 EVOLUTION | UNI PROFESSIONAL | ID CLASSIC | UNI CLASSIC | DOPPELKERN I H-MANTEL | KEGELSPITZ SOFT POINT | **BIONIC YELLOW** | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS

EVOLUTION | UNI PROFESSIONAL | ID CLASSIC | UNI CLASSIC | DOPPELKERN | H-MANTEL | KEGELSPITZ 39 SOFT POINT | BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS



RWS lead free Bionic cartridges are based on a finely adju-sted mix of brass alloy and its Dual-Tec principle deli-vers outstanding accuracy. Unlike some other simple copper bullets the Bionic leaves minimum copper fouling in the barrel due to its advanced materia characteristics and profile design.

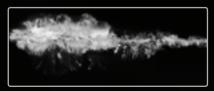


The features at a glance:

Partial Fragmentation Bullet

This lead free partial fragmentation bullet is designed to be effective at short range. A combination of the frangible special brass alloy and shock canelures guarantee a defined fragmentation with high shock effect at close ranges ; these characteristics are particularly evident when used on light to medium game.





.30-06

.308 Win, .30-06

Simulated wound cavity in a gelatine block

Calibers:



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:



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 $E_{100} > 1000 \text{ J}$ 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.

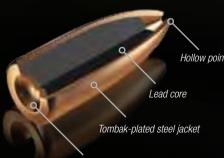
Calibers:

.22 Hornet, .222 Rem., .308 Win.,

FULL METAL JACKET

.22 Hornet, .404 Rimless

Fully jacketed nose



Ballistic calotte

40 EVOLUTION | UNI PROFESSIONAL | ID CLASSIC | UNI CLASSIC | DOPPELKERN | H-MANTEL | KEGELSPITZ SOFT POINT | BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS

EVOLUTION | UNI PROFESSIONAL | ID CLASSIC | UNI CLASSIC | DOPPELKERN | H-MANTEL | KEGELSPITZ 41 SOFT POINT | BIONIC YELLOW | FULL METAL JACKET | HUNTING MATCH | EXPERTS TRUST RWS

EXPERTS TRUST RWS



Franz-Albrecht, Erbprinz zu Oettingen-Oettingen und **Oettingen-Spielberg (Wild boar fever 3)** – People were always asking me about the .270 Win. - the unusual caliber I use for driven hunts. However, ever since the film "Wild boar fever 3", which demonstrates the effectiveness of this caliber, particularly in combination with the H-Mantel bullet (H-jacket bullet), the questioning has died down! For driven hunts I look for knock-down performance, so that everything lies in plain view. The reliability of the H-Mantel bullet gives me a good feeling and confidence at the firing point.



Dr. Ralph Nebe (Sales & Marketing Manager, Carl Zeiss Sports Optics GmbH) – Hunting in the mountains has always excited me. An exacting form of shooting that places the highest demands on the shooters and the equipment. Optics and ammunition are of outstanding importance. The **Evolution** bullet from RWS con-vinces me every time I am in the mountains. It is unbelievably accurate and, because of its high weight, brings enough energy to the target, even at long ranges. The drop is no problem, thanks to the fast reticule adjustment (ASV, Absehenschnellverstellung) from Zeiss. My optimum solution, when it matters.



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.







Thorsten Mann (General Manager of Mauser Jagdwaffen GmbH) – As the general manager of Mauser, I maintain close business contacts with our customers at home and abroad, and that involves frequent traveling. Regrettably, this often means having hardly any time for hunting, so I am particularly pleased if I can accept an invitation to a hunt. And then I place my trust entirely in my Mauser M 03 in combination with the UNI Classic! This is the combination of proven weapon and projectile design that give me reliability and adequate reserves for a humane hunt of even heavy game around the world!

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 (Strategic Marketing Manager 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 hrand



different and special cartridges. For look; effective, reliable, technically and hunting in extreme conditions, long ballistically advanced. range match shooting, training or RWS rifle cartridges even personalised cartridges RWS special in every way. can offer the ammunition solution.

SILVER SELECTION | SPECIAL EDITION | TARGET ELITE | CINESHOT 43

ALWAYS SOMETHING

Decral

Different areas of application require RWS cartridges are as good as they

www.rws-ammunition.com

Silver

electron

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

event of an attack by a polar bear, I want to be prepared. The low temperatures and the resulting rough handling insurance.

Kasper Johansen (Researcher at the Danish National Envi- of the material show up the heavy demands made on a reliable mental Research Institute) – On my expeditions to Green- cartridge very clearly. If attacked, there would be no time for land, I always have my rifle and ammunition with me. In the misfires. So the Silver Selection, developed for extreme conditions and with an unparalleled reliability, has become our life

SILVER SELECTION

Technically and aesthetically unique

hunting even in extreme situations. features of the Silver Selection can challenge and demands only the best from himself and his ammunition.



for accuracy, flat traject



for accuracy pe



for easier chambering and CASE fast reloading

CONTROL

FLASH CONTRO

for reduced muzzle flash to keer

the hunting situation in view



HIGH PERFORMANCE I OAI for power reserves in



SUPER CLEAN TECHNOLOGY



RIC Silver Selection

300 Win. Mag.

300 WID. Ma



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



ilver

ectio



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



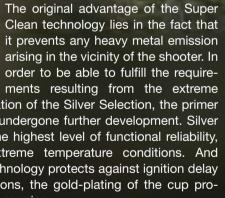
range of application of the Silver Selection, the primer cess under extreme conditions. compound has undergone further development. Silver Selection has the highest level of functional reliability, even under extreme temperature conditions. And Super Clean technology protects against ignition delay in critical situations, the gold-plating of the cup protecting against corrosion.



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.

SILVER SELECTION I SPECIAL EDITION I TARGET ELITE I CINESHOT 47





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 suc-



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

The Flash Control technology used in applied to the Silver Selection cartridge cases makes them easier to chamber and faster in reloading than normal cartridges.

Calibers EVO:

.308 Win. 9,3x62

.30-06 9,3x74 R

.300 Win. Mag.

Calibers UNI PRO:

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

SPECIAL EDITION

A personal masterpiece

This exclusive special series, available in eight classic hunting calibers, is a true bullets and black ruthenium coated rarity. Every individual component, from cases produce not only optimum balprimer through case and powder to listics but a stunning looking cartridge. the bullet, has been carefully selected, tested, refined, and then, finally, loaded Personal note: Each individual carby 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 **Ballistic Perfection**: The use of the a masterpiece. The legendary RWS H-jacket bullets are gold-plated, with noble black ruthenium-coated cartridge cases engraved with the name and reliability for every single cartridge. of the person, making this range of cartridges into a personal masterpiece.

equire a festive arrangement. A handmade and indi- form of recognition. graved Special Edition has often shown itself to be

in Freiherr Heereman von Zuydtwyck (Honorary very appropriate. It makes a marvelous present for a really special t of the Federation of German Hunters) – Festive occasion. I have never seen anyone who did not appreciate this

18mm DUALITATE-ZENTIFIKAT SILVER SELECTION | SPECIAL EDITION | TARGET ELITE | CINESHOT 49

Brilliant look: Gold plated H-Mantel

tridge is engraved with the name of the person and is thus a unique, individual product.

best components, their enhancement and the hand loading of the Special Edition guarantee the highest accuracy

Calibers:

7x64 7x65 R .308 Win .30-06

.300 Win. Mag. 8x57 JS 8x57 JRS 9,3x74 R

TARGET ELITE

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







in Robertson (Executive Officer, Shooting Committee, NRA) - with the most prestigious shooting competition in the world: "Her In 2008, RWS was selected as the supplier for the Imperial Majesty the Queen's Prize". Very severe specification were laid Neeting of the National Rifle Association of Great Britain, which down, in order to achieve the best possible performance within s held annually in Bisley, Surrey, and reaches its culmination the technical limitations of pressure and velocity for the special target rifles which are used for this world-class competition. For have by now fired off more than a million RWS cartridges, and three successive years, RWS has supplied ammunition that has can be sure that "it lands where you point it" every time. With no problem in exceeding all the specifications. The critical test RWS, competition has become tougher but fairer, and the perfor competition ammunition is its consistency. NRA members formance has improved at all levels of the sport.

Ultimate match grade cartridges

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

- 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



Recommended for the following distances

	 m►	20	00 3	300 4	00 5	00 6	500 7	, 200 8	00 9	00 10)00 1 ⁻	100 1:	200 1	300 1	1500	170
.308 Win. (12,3 g)																
.308 Win. (10,9 g)																
.308 Win. (10,0 g)																

Calibers: .308 Win.

Single Step Loading Technology

Check

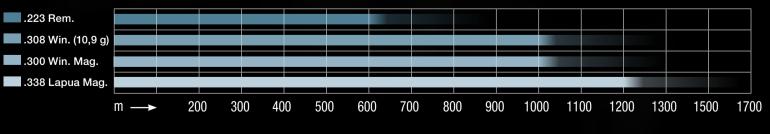
Dosed powder charge Seat

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



Recommended for the following distances



SILVER SELECTION | SPECIAL EDITION | TARGET ELITE | CINESHOT 53





powder weight

powder charge

Double Step Loading Technology



3. 4. 5. Fine dosage Check load weight Bullet seating



.300 Win. Mag. .338 Lapua Mag.

CINESHOT

Humane hunting demands regular training

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







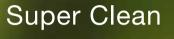
Optimum performance

Because of the consistent load and a precisely adjusted surface coating of the bullet minimizes friction between projectile geometry, CINESHOT® has high intrinsic the bullet and the bore, and enables intensive training accuracy and sufficient gas pressure for reliable feeding in all normal commercial self-loading rifles. A special

Calibers:	
7x64	.30-06
.308 Win.	8x57 JS

almost reaches the screen, and a lot of other things that aren't so good. Super Clean technology Fortunately, Cineshot has driven all this sort of thing out of the cinema





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

without overheating and intensive cleaning.

9,3x62 .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

like the hunt

The RWS application advisor

The fascinating thing about hunting is exit wound are all a matter of course for experience and situation so there is no and minimum carcass damage. is the best bullet'? You must consider demanding situations. the type of hunt, kind of game, range, The following tables list the most imporcaliber, gun and the hunters personal tant criteria for RWS propreferences all make demands of the jectiles, and are intencartridge. RWS fulfills these demands ded to assist you in with its comprehensive selection of finding the ideal bullet cartridges.

Accuracy and the triple shock effect of impact shock, penetration shock and

that every hunt is different and a new us; for every type of game, all ranges universal answer to the question 'which Special bullets from RWS for the most

for your hunt.















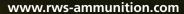












APPLICATION ADVISOR | BALLISTIC DATA 57

	Accuracy	Flight distance	Penetration	Stopping power	Exit wound	Clean cut	Meat damage
	very good	short	very deep	deep	certain	yes	very little
	very good	short	very deep	deep	certain	yes	little
	good	very short	deep	very deep	usually	yes	variable
°C	good	short	deep	deep	certain	yes	little
55	very good	very short	deep	very deep	usually	yes	little
Ĩ	very good	very short	medium	very deep	certain	no	variable
55	very good	short	deep	deep	usually	no	little
5) :L	good	short	medium	deep	usually	no	variable
	very good	very short	medium	very deep	certain	yes	variable
	good	short	medium	medium	certain	no	very little

58 BALLISTIC DATA

Silver Selection

Projectile Article No.	Weight g	Barrel length mm	V 2) E	0m	50m	100m	150m	200m	250m	300m	⊕ PBR *		50m	100m	150m	200m	250m	300m	~	n i		,	** *	
	gr	BC value									FDN	3)											K (I	
.308	Win.																							
EVO	11,9 g	600	V[m/s]	785	745	707	669	633	598	565	\oplus	100 m	-0,3	\oplus	- 4,6	-14,7	-31,0	-54,1	0	0	•	•	•	•
231 72 10	184	0,366	E[J]	3667	3302	2974	2663	2384	2128	1899	PBR	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	0	0	•		•	\bullet
231 75 42	180	0,367	E [J]	3651	3291	2966	2658	2381	2127	1894	PBR	162 m	1,7	4,0	1,4	-6,5	-20,5	-41,3						
30-06	5																							
EVO	11,9 g	600	V[m/s]	845	803	763	724	686	650	614	\oplus	100 m	-0,6	\oplus	- 3,6	-11,9	-25,5	-44,8	0	0	•	•	•	•
231 72 11	184	0,366	E[J]	4248	3837	3464	3119	2800	2514	2243	PBR	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	0	0	•	•	•	•
231 75 43	180	0,367	E[J]	4227	3819	3450	3109	2793	2502	2241	PBR	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	0	0	0	•	•	
231 72 12	184	0,366	E[J]	5257	4777	4319	3913	3528	3179	2857	PBR	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	0	0	\bullet		•	
231 75 44	180	0,367	E[J]	5280	4791	4347	3934	3559	3203	2883	PBR	198 m	1,0	4,0	3,7	-0,2	-8,2	-20,6						
9,3x6	2																							
EVO	18,8 g	600	V[m/s]	740	705	671	638	605	574	544	⊕	100 m	0,0	\oplus	- 5,4	-16,9	-35,1	-60,7	0	0	•	•	•	
231 72 15	291	0,400	E[J]	5147	4672	4232	3826	3441	3097	2782	PBR	154 m	2,0	4,0	0,6	-8,9	-25,1	-48,7						
9,3x7	4 R																							
EVO	18,8 g	600	V[m/s]	710	676	642	610	579	548	519	\oplus	100 m	0,2	\oplus	- 6,1	-18,9	-39,0	-67,2	0	0	•	•	•	
231 72 16	291	0,400	E[J]	4739	4296	3874	3498	3151	2823	2532	PBR	148 m	2,2	4,0	- 0,3	-11,0	-29,1	-55,5						

SPECIAL EDITION

7 x 6	4																							
нмк	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	0	•	•	•	•
231 52 40	173		E [J]	4209	3830	3468	3142	2839	2567	2308	PBR	180 m	1,3	4	,0	2,8	-2,8	-13,3	-29,1					
7 x 6	5 R																							
нмк	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	0	•	•	•	0
231 52 41	173		E [J]	4017	3647	3312	2992	2705	2439	2188	PBR	175 m	1,4	4	,0	2,5	-3,6	-14,8	-31,7					
.308	Win.																							
нмк	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	0	•	•	•	0
231 52 28	180		E [J]	3697	3326	2982	2665	2381	2120	1881	PBR	163 m	1,7	4	,0	1,5	-6,3	-20,2	-40,9					
.30-0	6																							
нмк	11,7 g	600	V [m/s]	856	813	771	731	692	654	617	Ð	100 m	-0,6	(⊕	-3,5	-11,6	-24,8	-43,7	0	•	•	•	•
231 52 29	180		E [J]	4287	3867	3477	3126	2801	2502	2227	PBR	176 m	1,4	4	,0	2,5	-3,5	-14,7	-31,7					
.300	Win.	Ma	ıg.																					
нмк	11,7 g	650	V [m/s]	955	909	864	821	779	738	699	Ð	100 m	-1,0	(⊕	-2,3	-8,2	-18,2	-32,6	0	0	•	•	•
231 62 30	180		E [J]	5335	4834	4367	3943	3550	3186	2858	PBR	197 m	1,0	4	,0	3,7	-0,3	-8,3	-20,8					
8 x 5	7 JS																							
нмк	12,1 g	600	V [m/s]	832	786	742	699	657	617	578	Ð	100 m	-0,5	(€	-4,0	-12,9	-27,6	-48,8	0	•	•	0	0
231 62 32	187		E [J]	4188	3738	3331	2956	2611	2303	2021	PBR	168 m	1,5	4	,0	2,0	-5,0	-17,7	-36,9					
8 x 5	7 JRS	5																						
нмк	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	0	•	•	•	•
231 52 42	187		E [J]	3728	3313	2939	2604	2296	2014	1764	PBR	160 m	1,8	4	,0	1,3	-7,2	-22,2	-44,6					
9,3 x	74 R																							
нмк	16,7 g	600	V [m/s]	762	724	686	650	615	581	549	⊕	100 m	-0,2	(€	-5,1	-15,9	-33,3	-58,03	30	•	•	•	•
231 62 31	258		E [J]	4848	4377	3929	3528	3158	2819	2517	PBR	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 Trajector	200m ry (cm)	250m	300m
.308 W	/in.																	
Target Elite	10,0	650	V[m/s]	910	873	837	803	768	735	702	Ð	100 m	-0,9	\oplus	-2,6	-9,0	-19,6	-34,7
231 75 55	154	0,437	E[J]	4141	3811	3503	3224	2949	2701	2464	PBR	192 m	1,1	4,0	3,5	-0,9	-9,5	-22,6
									Recommen	nded for th	e followir	ng 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	PBR	169 m	1,6	4,0	2,0	-4,9	-17,1	-35,1
									Recommen	nded for th	e followir	ng distances						
Target Elite	12,3	650	V[m/s]	750	724	699	674	650	626	603	Ð	100 m	-0,2	\oplus	-4,9	-15,1	-31,2	-53,5
231 75 50	190	0,550	E[J]	3459	3224	3005	2794	2598	2410	2236	PBR	159 m	1,8	4,0	1,1	-7,2	-21,3	-41,6
									Recommen	nded for th	e followir	ng 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 Trajector	800m y (cm)	1000m	1200m
.223 Re	m.																
Target Elite <mark>Plus</mark>	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				
	Latera	l drift (cm)		0,0	16,0	72,4	183,8				500m	73,3	59,8				
									Recomme	nded for the fol	llowing distances						
.308 W	in.																
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	
									Recomme	nded for the fol	llowing distances						
.300 W	in.	Mag	3.														
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	
	Latera	l 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	
									Recomme	nded for the fol	llowing distances						
.338 La	apu	ia Ma	ag.														
	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
	Latera	l 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
									Pecomme	nded for the fol	llowing distances						

CINESHOT The first cartridge especially for cinema ranges

Article No.	Caliber	Grams/Grain	Article No.	Caliber	Grams/Grain
231 67 14	7x64	9,0 g / 139 gr	231 72 03	.300 Win. Mag.	9,5 g/ 147 gr
231 67 11	.308 Win.	9,5 g / 147 gr	231 67 13	8x57 IS	12,1 g / 187 gr
231 67 10	.30-06 Spring.	9,5 g / 147 gr	231 67 12	9,3x62	12,7 g / 196 gr

Animal pictogram: 🎾 Capercaillie 🔎 Fox K. Roe deer k Wild boar K. Red deer K Elk K Buffalo Rating: highly suitable () well suited () suitable, with limitations $/ ^{1}$ BC = ballistic coefficient $- ^{2}$ V = velocity, E = Energy $- ^{3}$ PBR = point-blank 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.

60



Ready for success

RWS – the ammunition counts.

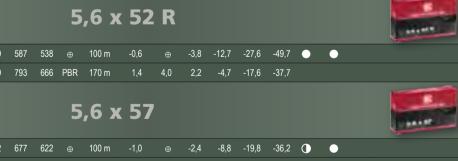
R10 Match air rifle pellets and R50 rimfire cartridges mean Mario Knögler (European Champion 2006) - I demand a lot of effort maximum accuracy and reliability. Extreme care in production from myself, in order to achieve my sporting aims. And that is why it is combined with high quality standards produce the best results. *important for me to be able to trust an ammunition manufacturer that* has the same attitude and guarantees perfection in their products.

Some hurt

Projectile Article No.	Weigh g gr	t Barrel length mm BC-Value 1)	V 2) E	0m	50m	100m	150m	200m	250m		⊕ PBR * 3)	50m 1	00m	150m	200m	250m	300m	2	R			
	-										.2	22 H	orr	net	t							E	8
TMS	3,0	600	V[m/s]	740	650	566	490	423	369	330	Ð	100 m	0,4		-8,2	-26,7	-59,1	-109,7	_	_	Targ	get	
211 63 75	46	0,152	E[J]	821	634	481	360	268	204	163	PBR	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	0		and Ta	arget	
211 63 83	46	0,152	E[J]	821	634	481	360	268	204	163	PBR	136 m	2,3	4,0	-2,5	-19,1	-49,7	-98,4					
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	0		and Ta	arget	
211 63 67	46	0,140	E[J]	821	618	457	334	244	185	150	PBR	134 m	2,4	4,0	-3,1	-21,0	-54,3	-107,5					
			=								.2	222	Rer	n.									
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	•	0	and Ta	arget	
211 64 05	50	0,186	E[J]	1524	1260	1037	844	682	545	431	PBR	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	Ð	100 m	-1,0	⊕	-2,8	-10,2	-23,4	-43,9			Targ	get	
231 26 35	52	0,183	E[J]	1649	1362	1115	906	729	580	458	PBR	183 m	1,0	4,0	3,2	-2,2	-13,5	-32,0		_			
											.2	223	Rer	n.									
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	•	\bullet	and Ta	arget	
211 64 72	55	0,207	E[J]	1764	1491	1252	1045	867	712	581	PBR	189 m	1,0	4,0	3,5	-1,3	-11,2	-27,4					
-			3			>					5	,6 x	50	Μ	ag	nu	m						
TMS	4,1	600	V[m/s]	920	854	791	731	673	618	566	5 ⊕	,6 x	50 -0,8	M	ag -3,1	-10,8	-24,0	-43,7	•	•			
TMS 211 64 99	4,1 63	600 0,240	V[m/s] E[J]	920 1735	854 1495	791 1283	731 1095	673 929	618 783	566 657	_							-43,7 -31,6	•	•		E	
											⊕ PBR	100 m	-0,8 1,2	⊕ 4,0	-3,1 2,9	-10,8 -2,8	-24,0 -13,9	-31,6	•	•			
			E[J]								⊕ PBR	100 m 180 m	-0,8 1,2	⊕ 4,0	-3,1 2,9	-10,8 -2,8	-24,0 -13,9	-31,6	•	•			
211 64 99 	63 3,24 50	0,240 600 0,186	E[J] V[m/s] E[J]	1735 1070 1855	1495 975 1540	1283 887 1275	1095 804 1047	929 726 854	783 653 691	657 583 551	⊕ PBR 5	100 m 180 m 6 X 100 m 201 m	-0,8 1,2 50 -1,2 0,8	⊕ 4,0 R	-3,1 2,9 Ma -1,9 4,0	-10,8 -2,8 agi -7,7 0,3	-24,0 -13,9 TUI -18,1 -8,1	-31,6 n -34,3 -22,4		•			
211 64 99 	63 3,24 50 3,6	0,240 600 0,186 600	E[J] V[m/s] E[J] V[m/s]	1735 1070 1855 1000	1495 975 1540 919	1283 887 1275 843	1095 804 1047 770	929 726 854 702	783 653 691 637	657 583 551 575	⊕ PBR 5 ⊕ PBR ⊕	100 m 180 m ,6 x 100 m 201 m 100 m	-0,8 1,2 50 -1,2 0,8 -1,0	⊕ 4,0 R ⊕ 4,0 ⊕	-3,1 2,9 M -1,9 4,0 -2,4	-10,8 -2,8 agi -7,7 0,3 -9,0	-24,0 -13,9 -18 ,1 -18,1 -8,1 -20,6	-31,6 n -34,3 -22,4 -38,3					
211 64 99 TMS 211 68 47 TMS 211 64 48	63 3,24 50 3,6 55	0,240 600 0,186 600 0,207	E[J] V(m/s] E[J] E[J]	1735 1070 1855 1000 1800	1495 975 1540 919 1520	1283 887 1275 843 1279	1095 804 1047 770 1067	929 726 854 702 887	783 653 691 637 730	657 583 551 575 595	⊕ PBR 5 ⊕ PBR ₽BR	100 m 180 m ,6 x 100 m 201 m 100 m 191 m	-0,8 1,2 50 -1,2 0,8 -1,0 1,0	⊕ 4,0 R ⊕ 4,0 ⊕	-3,1 2,9 M -1,9 4,0 -2,4 3,6	-10,8 -2,8 2 9 1 -7,7 0,3 -9,0 -1,0	-24,0 -13,9 -18 ,1 -18,1 -8,1 -20,6 -10,6	-31,6 -34,3 -22,4 -38,3 -26,3	•	•			
211 64 99 TMS 211 68 47 TMS 211 64 48 TMS	63 3,24 50 3,6 55 4,1	0,240 600 0,186 600 0,207 600	E[J] V(m/s] E[J] V(m/s] E[J] V(m/s]	1735 1070 1855 1000 1800 900	1495 975 1540 919 1520 835	1283 887 1275 843 1279 773	1095 804 1047 770 1067 713	929 726 854 702 887 656	783 653 691 637 730 602	657 583 551 575 595 551	⊕ PBR 5 ⊕ PBR ⊕ PBR ⊕	100 m 180 m ,6 x 100 m 201 m 100 m 191 m 100 m	-0,8 1,2 50 -1,2 0,8 -1,0 1,0 1,0 -0,7	⊕ 4,0 R ⊕ 4,0 ⊕ 4,0	-3,1 2,9 M -1,9 4,0 -2,4 3,6 -3,4	-10,8 -2,8 2 G -7,7 0,3 -9,0 -1,0 -11,6	-24,0 -13,9 CUP -18,1 -8,1 -20,6 -10,6 -25,6	-31,6 -34,3 -22,4 -38,3 -26,3 -46,4	•	•			
211 64 99 TMS 211 68 47 TMS 211 64 48	63 3,24 50 3,6 55	0,240 600 0,186 600 0,207	E[J] V(m/s] E[J] E[J]	1735 1070 1855 1000 1800 900	1495 975 1540 919 1520	1283 887 1275 843 1279 773	1095 804 1047 770 1067 713	929 726 854 702 887	783 653 691 637 730	657 583 551 575 595 551	⊕ PBR 5 ⊕ PBR ₽BR	100 m 180 m ,6 x 100 m 201 m 100 m 191 m	-0,8 1,2 50 -1,2 0,8 -1,0 1,0	⊕ 4,0 R ⊕ 4,0 ⊕	-3,1 2,9 M -1,9 4,0 -2,4 3,6	-10,8 -2,8 2 G -7,7 0,3 -9,0 -1,0 -11,6	-24,0 -13,9 -18 ,1 -18,1 -8,1 -20,6 -10,6	-31,6 -34,3 -22,4 -38,3 -26,3	•	•			
211 64 99 TMS 211 68 47 TMS 211 64 48 TMS	63 3,24 50 3,6 55 4,1	0,240 600 0,186 600 0,207 600	E[J] V(m/s] E[J] V(m/s] E[J] V(m/s]	1735 1070 1855 1000 1800 900	1495 975 1540 919 1520 835	1283 887 1275 843 1279 773	1095 804 1047 770 1067 713	929 726 854 702 887 656	783 653 691 637 730 602	657 583 551 575 595 551	 ⊕ PBR ⊕ PBR ⊕ PBR ⊕ PBR ⊕ PBR 	100 m 180 m ,6 x 100 m 201 m 100 m 191 m 100 m	-0.8 1,2 50 -1,2 0,8 -1,0 1,0 -0,7 1,3	 ⊕ 4,0 <l< td=""><td>-3,1 2,9 M -1,9 4,0 -2,4 3,6 -3,4</td><td>-10,8 -2,8 2 G -7,7 0,3 -9,0 -1,0 -11,6</td><td>-24,0 -13,9 CUP -18,1 -8,1 -20,6 -10,6 -25,6</td><td>-31,6 -34,3 -22,4 -38,3 -26,3 -46,4</td><td>•</td><td>•</td><td></td><td></td><td></td></l<>	-3,1 2,9 M -1,9 4,0 -2,4 3,6 -3,4	-10,8 -2,8 2 G -7,7 0,3 -9,0 -1,0 -11,6	-24,0 -13,9 CUP -18,1 -8,1 -20,6 -10,6 -25,6	-31,6 -34,3 -22,4 -38,3 -26,3 -46,4	•	•			
211 64 99 TMS 211 68 47 TMS 211 64 48 TMS	63 3,24 50 3,6 55 4,1	0,240 600 0,186 600 0,207 600	E[J] V(m/s] E[J] V(m/s] E[J] V(m/s]	1735 1070 1855 1000 1800 900	1495 975 1540 919 1520 835	1283 887 1275 843 1279 773	1095 804 1047 770 1067 713	929 726 854 702 887 656	783 653 691 637 730 602	657 583 551 575 595 551	 ⊕ PBR ⊕ PBR ⊕ PBR ⊕ PBR ⊕ PBR 	100 m 180 m , 6 x 100 m 201 m 100 m 191 m 100 m 107 m	-0,8 1,2 50 -1,2 0,8 -1,0 1,0 -0,7 1,3 52 -0,6	 ⊕ 4,0 <l< th=""><th>-3,1 2,9 M -1,9 4,0 -2,4 3,6 -3,4</th><th>-10,8 -2,8 29 -7,7 0,3 -9,0 -11,6 -3,7</th><th>-24,0 -13,9 -18,1 -8,1 -20,6 -10,6 -25,6 -15,6</th><th>-31,6 -34,3 -22,4 -38,3 -26,3 -46,4 -34,4 -34,4</th><th>•</th><th>•</th><th></th><th></th><th></th></l<>	-3,1 2,9 M -1,9 4,0 -2,4 3,6 -3,4	-10,8 -2,8 29 -7,7 0,3 -9,0 -11,6 -3,7	-24,0 -13,9 -18,1 -8,1 -20,6 -10,6 -25,6 -15,6	-31,6 -34,3 -22,4 -38,3 -26,3 -46,4 -34,4 -34,4	•	•			
211 64 99 TMS 211 68 47 TMS 211 64 48 TMS 211 65 02	63 3,24 50 3,6 55 4,1 63	0,240 600 0,186 600 0,207 600 0,240	E[J] V[m/s] E[J] V[m/s] E[J] V[m/s] E[J]	1735 1070 1855 1000 1800 1661 870	1495 975 1540 919 1520 835 1429	1283 887 1275 843 1279 773 1225 749	1095 804 1047 700 1067 713 1042	929 726 854 702 887 656 882	783 653 691 637 730 602 743	657 583 551 575 595 521 622 538	⊕ PBR ⊕ PBR ⊕ PBR € S	100 m 180 m , 6 X 100 m 201 m 100 m 191 m 100 m 175 m	-0.8 1,2 50 -1,2 0,8 -1,0 1,0 -0,7 1,3 52	⊕ 4,0 ⊕ 4,0 ⊕ 4,0 € 4,0	-3,1 2,9 -1,9 4,0 -2,4 3,6 -3,4 2,6	-10,8 -2,8 29 -7,7 0,3 -9,0 -11,6 -3,7	-24,0 -13,9 -18,1 -8,1 -20,6 -10,6 -25,6 -15,6	-31,6 -34,3 -22,4 -38,3 -26,3 -46,4 -34,4 -34,4	•	•			
211 64 99 TMS 211 68 47 TMS 211 64 48 TMS 211 65 02 C C C C C C C C C C C C C C C C C C C	63 3,24 50 3,6 55 4,1 63 4,6	0,240 600 0,186 600 0,207 600 0,240	E[J] V[m/s] E[J] V[m/s] E[J] E[J]	1735 1070 1855 1000 1800 1661 870	1495 975 1540 919 1520 835 1429 808	1283 887 1275 843 1279 773 1225 749	1095 804 1047 700 1067 713 1042	929 726 854 702 887 656 882 882	783 653 691 637 730 602 743 587	657 583 551 575 595 521 622 538	 ⊕ PBR ⊕ PBR ⊕ PBR ⊕ PBR ⊕ PBR 	100 m 180 m , 6 x 100 m 201 m 100 m 191 m 100 m 175 m , 6 x 100 m	-0.8 1,2 50 -1,2 0,8 -1,0 1,0 -0,7 1,3 52 -0,6 1,4	⊕ 4,0 ₩ 4,0 ⊕ 4,0 4,0 R	-3,1 2,9 M -1,9 4,0 -2,4 3,6 -3,4 2,6 -3,8	-10,8 -2,8 29 -7,7 0,3 -9,0 -11,6 -3,7	-24,0 -13,9 -18,1 -8,1 -20,6 -10,6 -25,6 -15,6	-31,6 -34,3 -22,4 -38,3 -26,3 -46,4 -34,4 -34,4	•	•			
211 64 99 TMS 211 68 47 TMS 211 64 48 TMS 211 65 02 C C C C C C C C C C C C C C C C C C C	63 3,24 50 3,6 55 4,1 63 4,6	0,240 600 0,186 600 0,207 600 0,240	E[J] V[m/s] E[J] V[m/s] E[J] E[J]	1735 1070 1855 1000 1800 1661 870	1495 975 1540 919 1520 835 1429 808	1283 887 1275 843 1279 773 1225 749	1095 804 1047 700 1067 713 1042	929 726 854 702 887 656 882 882	783 653 691 637 730 602 743 587	657 583 551 575 595 521 622 538	 ⊕ PBR ⊕ PBR ⊕ PBR ⊕ PBR ⊕ PBR 	100 m 180 m , 6 X 100 m 201 m 100 m 191 m 100 m 175 m , 6 X 100 m	-0.8 1,2 50 -1,2 0,8 -1,0 1,0 -0,7 1,3 52 -0,6 1,4	⊕ 4,0 ₩ 4,0 ⊕ 4,0 4,0 R	-3,1 2,9 M -1,9 4,0 -2,4 3,6 -3,4 2,6 -3,8	-10,8 -2,8 3 9 -7,7 0,3 -9,0 -1,0 -11,6 -3,7 -12,7 -4,7	-24,0 -13,9 -18,1 -8,1 -20,6 -10,6 -25,6 -15,6	-31,6 -34,3 -22,4 -38,3 -26,3 -46,4 -34,4 -49,7 -37,7	•	•			

Animal pictogram: \checkmark Capercaillie \checkmark Fox \checkmark Roe deer \checkmark Wild boar \checkmark Red deer \checkmark Elk \checkmark Buffalo Rating: \bigcirc highly suitable \bigcirc well suited \bigcirc suitable, with limitations / ¹⁰ BC = ballistic coefficient - ²⁰ V = velocity, E = Energy - ³⁰ PBR = point-blank 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.

BALLISTIC DATA 61





Ready for success

Barbara Lechner (World Champion 2010) - One reason why I have control in all kinds of weather. Furthermore, I like to be able to use the been using RWS ammunition for years is the enormous reliability. I can RWS test firing range to select my personal favorite ammunition from always rely on my material 100%, and it has to be like that if you want the entire spectrum, that which perfectly matches my rifle. This is part to shoot at world championship level! The high accuracy is another of my optimized preparation for competitions. reason why I have stuck with the RWS brand ever since the early days. I just simply know how the ammo "ticks", and have the situation under

Barbara flohn

Projectile Article No.	Weight g	: Barrel length mm	V 2) E	0m	50m	100m	150m	200m	250m				50m	100m	150m	200m	250m	300m	2			ले ती ली
	gr	BC-Value 1)	-		v ~						PBR * 3											
2			-	-	-						.2	243	Wi	n.								141.00
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	PBR	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	⊕ 4 0	-2,7	-9,5	-20,6	-36,6	•	•	_	
211 68 71	100	0,371	E[J]	2691	2443	2217	2003	1809	1629	1463	PBR	188 m	1,1	4,0	3,3	-1,5	-10,6	-24,6				
-		-			_						6	,5 x	54		lan	nl.	Sc	h.				Andread
тир	10,3	450	V	670	628	587	548	512	477	446	Ð	100 m	0,6	Ð	-7,8	-23,7	-49,0	-85.2		•		(and
TMR 211 70 37	159	0,315	[m/s] E [J]		2031	1775	1547	1350	1172	1024	PBR	140 m	2,6	4,0	-1,7	-15,7	-49,0	-73,2				
	100	0,010	E [0]	ZUIZ	2001	1110	1041	1000	1172	1024			2,0	7,0	1,7	10,1	00,0	10,2				ALC: NO
1				-	-		~				6	,5 x	55	5								-
KS	8.2	650	V[m/s]	885	842	800	759	720	682	645	Ð	100 m	-0,8	Ð	-3,1	-10,4	-22,5	-39,8	0	•	0	0
211 70 02	127	0,361	E[J]	3211	2907	2624	2362	2125	1907	1706	PBR	182 m	1,2	4,0	2,9	-2,4	-12,5	-27,8				
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	0	•	•	•
211 69 95	140	0,305	E[J]	3444	3059	2705	2385	2098	1835	1600	PBR	175 m	1,3	4,0	2,6	-3,6	-15,0	-32,6				
-	-	-	-		-			Ð			6	,5 x	57									
¥											U	, , , , , , , , , , , , , , , , , , ,	57									C. MART
тмѕ	6,0	600	V[m/s]	970	905	843	784	728	674	622	⊕	100 m	-1,0		-2,5	-8,9	-20,0	-36,5	0	•	0	0
211 70 61	93	0,255	E[J]	2823	2457	2132	1844	1590	1363	1161	PBR	192 m	1,0	4,0	3,5	-0,9	-10,0	-24,5	~		-	
KS 211 70 10	7,0 108	600 0,308	V[m/s] E[J]	915 2930	863 2607	813 2313	766 2054	719 1809	674 1590	631 1394	⊕ PBR	100 m 185 m	-0,9 1,1	⊕ 4,0	-2,9 3,1	-9,9 -1,9	-21,7 -11,7	-39,0 -27,0	•	•	0	
KS	8,2	600	V[m/s]	870	827	786	746	707	669	632	⊕	100 m	-0,7	- ,0 ⊕	-3,3	-11,0	-23,5	-41,6	0	•	0	•
211 70 96	127	0,361	E[J]	3103	2804	2533	2282	2049	1835	1638	PBR	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	0	•	0	•
231 43 52	140	0,305	E[J]	2985	2642	2326	2042	1789	1557	1351	PBR	164 m	1,6	4,0	1,6	-6,3	-20,4	-41,8	_		_	
		-			-						6	,5 x	57	/ R								
		_									U	, , , , , , , , , , , , , , , , , , , ,		•								an orthogonal and a second
TMS	6,0	600	V[m/s]	960	896	834	776	720	666	614		100 m	-1,0		-2,6	-9,2	-20,6	-37,6	0	•	0	0
211 71 34	93	0,255	E[J]		2408		1807	1555	1331	1131	PBR	189 m	1,0	4,0	3,4		-10,7	-25,7	•		•	
KS 211 70 29	7,0 108	600 0.308	V[m/s] E[J]	870 2649	820 2353	772 2086	725 1840	680 1618	637 1420	595 1239	⊕ PBR	100 m 176 m	-0,7 1,3	⊕ 4.0	-3,4 2,6	-11,6 -3,5	-25,0 -14,9	-44,5 -32,4	0	•	•	0
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	•	•	0	0
211 71 50	127	0,361	E[J]	2859	2578	2325	2090	1874	1674	1491	PBR	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	0	-5,1	-16,2	-34,3	-60,3	0	•	•	0
211 71 18	140	0,305	E[J]	2733	2411	2116	1858	1616	1407	1221	PBR	157 m	1,8	4,0	0,9	-8,2	-24,2	-48,2				1
1					-	-					6	,5 x	65	5 R'	WS							Charles
94																						<u></u>
KS	8,2	650	V[m/s]	900	856	814	773	733	694	657	⊕ 	100 m	-0,8	⊕ 4.0	-2,9	-9,9	-21,4	-38,1	0	•	•	•
211 69 79	127	0,361	E[J]	3321	3004	2717	2450	2203	1975	1770	PBR	185 m	1,2	4,0	3,1	-1,9	-11,5	-26,2				
-	-					-					6	,5 x	65	5 R	RV	VS						-
-																						
KS	8,2	650	V[/s]	870	827	786	746	707	669	632	⊕	100 m	-0,7	⊕ 4 0	-3,3 2 0	-11,0	-23,5	-41,6	0	•	•	0
211 69 87	127	0,361	E[J]	3103	2804	2533	2282	2049	1835	1638	PBR	180 m	1,3	4,0	2,8	-2,9	-13,5	-29,5				CONT NO.
-								-			6	,5 x	68	3								
		0.50																	~		-	
TMS 211 71 85	6,0 93	650 0,255	V[m/s] E[J]		1076 3473		939 2645	876 2302	815 1993	758 1724	⊕ PBR	100 m 221 m	-1,4 0,2	⊕ 3,3	-1,0 4,0	-4,8 1,9	-11,8 -3,5	-22,5 -12,5	0	•	•	•
211 /1 85 KS	93 8,2	650	⊑[J] V[m/s]	960	914	870	827	786	746	707	₩ ₩	100 m	-1,0	3,3 ⊕	-2,2	-8,0	-3,5	-32,0	0	•	•	•
211 72 15	127	0,361	E[J]		3425						PBR	197 m	0,9	4,0	3,6	-0,3	-8,1	-20,4				

Projectile	Weight	Barrel length	Va	0m	50m	100m	150m	200m	250m	300m			50m 1	00m	150m	200m	250m	300m				1
Article No.	g gr	mm BC-Value 1)	E	UIII	50111	100111	130111	200111	230111		PBR * 3)		JUIII	UUIII	130111	200111	230111	50011	A	R		लें ती ली
1		_		_	-						7	243	\\/:.									ACCU PRO
			-	-	-						- 2	.43	VVII									24194
KS	6,2	600	V[m/s]	930	875	823	772	723	676	631	\oplus	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	PBR	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	⊕ 4.0	-2,7	-9,5	-20,6	-36,6	•	•		
211 68 71	100	0,371	E[J]	2691	2443	2217	2003	1809	1629	1463	PBR	188 m	1,1	4,0	3,3	-1,5	-10,6	-24,6	_			
	-	-		-	_	_					6	,5 x	54	Μ	lan	nl.	Sc	h.				
		_									•											Constant of
TMR	10,3	450	V [m/s]	670	628	587	548	512	477	446		100 m	0,6		-7,8	-23,7	-49,0	-85,2	•	•		
211 70 37	159	0,315	E [J]	2312	2031	1775	1547	1350	1172	1024	PBR	140 m	2,6	4,0	-1,7	-15,7	-39,0	-73,2				
1	-	-			-						_	_										Acres and
	-		-	-		~					6	,5 x	55									
кs	8,2	650	V[m/s]	885	842	800	759	720	682	645	Ð	100 m	-0,8		-3,1	-10,4	-22,5	-39,8	•	•	0	0
211 70 02	127	0,361	E[J]	3211	2907	2624	2362	2125	1907	1706	PBR	182 m	1,2	4,0	2,9	-2,4	-12,5	-27,8				
DK	9,1	740	V[m/s]	870	820	771	724	679	635	593	\oplus	100 m	-0,7	\oplus	-3,5	-11,6	-25,1	-44,7	0	•	0	•
211 69 95	140	0,305	E[J]	3444	3059	2705	2385	2098	1835	1600	PBR	175 m	1,3	4,0	2,6	-3,6	-15,0	-32,6				
	-	-	-		-			Ð			C	E	63									
*	_	_		/							b,	,5 x	57									Court-
тмѕ	6,0	600	V[m/s]	970	905	843	784	728	674	622	Ð	100 m	-1,0		-2,5	-8,9	-20,0	-36,5	0	•	0	0
211 70 61	93	0,255	E[J]	2823	2457	2132	1844	1590	1363	1161	PBR	192 m	1,0	4,0	3,5	-0,9	-10,0	-24,5				
ĸs	7,0	600	V[m/s]	915	863	813	766	719	674	631	\oplus	100 m	-0,9	\oplus	-2,9	-9,9	-21,7	-39,0	0		0	0
211 70 10	108	0,308	E[J]	2930	2607	2313	2054	1809	1590	1394	PBR	185 m	1,1	4,0	3,1	-1,9	-11,7	-27,0				
KS	8,2	600	V[m/s]	870	827 2804	786	746	707	669	632	⊕ חסח	100 m	-0,7	⊕ 4 0	-3,3	-11,0	-23,5	-41,6	0	•	•	•
211 70 96 DK	127 9,1	0,361 600	E[J] V[m/s]	3103 810	762	2533 715	2282 670	2049 627	1835 585	1638 545	PBR ⊕	179 m 100 m	1,3 -0,4	4,0 ⊕	2,8 -4,4	-2,9 -14,3	-13,5 -30,5	-29,5 -53,8			0	
231 43 52	140	0,305	E[J]	2985				1789	1557	1351	PBR	164 m	1,6	4,0	1,6	-6,3	-20,4	-41,8			•	
-			_																			North And
18	-			-		-					6	,5 x	57	R								Desser
TMS	6,0 93	600 0,255	V[m/s]	960	896 2408	834	776 1807	720 1555	666 1331	614 1131	⊕ PBR	100 m 189 m	-1,0 1,0	⊕ 4,0	-2,6 3,4	-9,2 -1,3	-20,6 -10,7	-37,6 -25,7	0	•	0	0
211 71 34 KS	93 7.0	600	E[J] V[m/s]	870	820	772	725	680	637	595	г ық ⊕	109 m	-0,7	4,0 ⊕	-3,4	-11,6	-25,0	-44,5	•		0	0
211 70 29	108	0,308	E[J]		2353		1840		1420	1239	PBR	176 m	1,3	4,0	2,6	-3,5	-14,9	-32,4				
кs	8,2	600	V[m/s]	835	793	753	714	676	639	603	Ð	100 m	-0,5		-3,8	-12,4	-26,4	-46,4	0	•	0	0
211 71 50	127	0,361	E[J]		2578		2090	1874	1674	1491	PBR	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	⊕ 4 0	-5,1	-16,2	-34,3	-60,3	•	•	•	0
211 71 18	140	0,305	E[J]	2733	2411	2110	1858	1010	1407	1221	PBR	157 m	1,8	4,0	0,9	-8,2	-24,2	-48,2				Service and
-						-	-				6	,5 x	65	R	WS							Case of the local division of the local divi
M																						(Decent
ĸs	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	0	•	•	0
211 69 79	127	0,361	E[J]	3321	3004	2717	2450	2203	1975	1770	PBR	185 m	1,2	4,0	3,1	-1,9	-11,5	-26,2				
The rest of the local division in which the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division in the local division is not the local division in the local division in the local division is not the local division in the local division in the local division is not the local division in the local division in the local division is not the local division in the local division in the local division is not the local division in the local division in the local division in the local division in the local division is not the local division in th	-	_	-		-	-					6	5 v	65	D	DV	VC						1
-	-		-		-						O,	,5 x	03	Π	ΝV	42						
кs	8,2	650	V[/s]	870	827	786	746	707	669	632	Ð	100 m	-0,7		-3,3	-11,0	-23,5	-41,6	0	•	•	0
211 69 87	127	0,361	E[J]	3103	2804	2533	2282	2049	1835	1638	PBR	180 m	1,3	4,0	2,8	-2,9	-13,5	-29,5				
					-		-															ALC: NO
1					-	-					6,	,5 x	68									and a second
TMS	6,0	650	V[m/s]	1150	1076	1005	939	876	815	758	Ð	100 m	-1,4	Ð	-1,0	-4,8	-11,8	-22,5	0	•	0	0
1MS 211 71 85	6,0 93	0,255	E[J]	3968		3030	939 2645	2302	1993	1724	⊕ PBR	221 m	-1,4	⊕ 3,3	-1,0 4,0	-4,0 1,9	-11,0 -3,5	-22,5	0			
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	0	•	•	•
	127	0,361	E[J]	3770	3425	3103	2804	2533	2282	2049	PBR	197 m	0,9	4,0	3,6	-0,3	-8,1	-20,4				
211 72 15	121	0,001		5115	0420	0100	2001						0,5	4,0	0,0							

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Quality is our No. 1 aim

product of the highest manufacturing skills and quality com- Rottweil® Waidmannsheil cartridges are also checked for conponents. Rottweil[®] Waidmannsheil shotgun cartridges owe formity with the very highest levels of quality before and after there reputation and renowned performance characteristics every production batch. to a matched combination of cases, powder, primer, pellets

AIDMANNSHEIL .

For over a century Rottweil[®] shotgun cartridges have been a and wads matched with experienced production techniques.

Projectile Article No.	Weight g ar	Barrel length mm BC-Value 1)	V 2) E	0m	50m	100m	150m	200m	250m		⊕ PBR * ₃		50m	100m	150m	200m	250m	300m	2	R		RA	-
6	Ŭ			_	_		·		_														
-	_		_	-	-		1				-2	270	Wi	in.									-
	0.4	050	\/[/-1	005	044	005	040	770	700	000		400	4.0		0.0	0.0	40.0	20.0	<u> </u>			k.	
TMS 211 84 40	8,4 130	650 0.325	V[m/s] E[J]	965 3911	914 3509	865 3143	818 2810	772 2503	728 2226	686 1977	⊕ PBR	100 m 196 m	-1,0 0,9	⊕ 4,0	-2,3 3,6	-8,2 -0,4	-18,2 -8,5	-32,9 -21,2	0	•	•	•	
HMK	8,4	650	V[m/s]	955	895	837	782	729	678	630	. <u>B</u> .(100 m	-1,0	.,•	-2,5	-9,1	-20,3	-36,9	0		•	•	
211 72 90	130	0,272	E[J]	3831	3364	2942	2568	2232	1931	1667	PBR	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	\oplus	100 m	-0,8	\oplus	-3,0	-10,2	-22,1	-39,4	0				
211 72 82	150	0,345	E[J]	3885	3496	3143	2824	2521	2249	2005	PBR	183 m	1,2	4,0	3,0	-2,2	-12,2	-27,4	~				
EVO	10,0 154	650 0.335	V[m/s]	840 3528	795 3160	751 2820	709 2513	668 2231	629 1978	591 1746	⊕ PBR	100 m 170 m	-0,6 1,4	⊕ 4.0	-3,8 2,1	-12,5 -4,6	-26,7 -16,8	-47,1 -35,3	0	•			
231 59 72	104	0,335	E[J]	3020	3100	2020	2013	2231	1970	1740	FDK	170111	1,4	4,0	۷,۱	-4,0	-10,0	-30,3					
	1	_									-			~ ~ ~									C. State
-			-	-	-	2					- 4	270	VV:	SIVI									anime
-		_																				8	
KS	9,7	600	[m/s]	955	907	861	817	774	732	692	⊕ ₽₽₽₽	100 m	-1,0	⊕ 1.0	-2,3	-8,3	-18,4	-33,0	0	•	•	•	
231 57 50	150	0,345	[J]	4423	3990	3595	3237	2906 734	2599	2322	PBR	195 m	0,9	4,0	3,5 2 8	-0,5	-8,7 21.0	-21,4	0				
EVO 231 59 71	10,0 154	600 0.335	[m/s] [J]	915 4186	867 3758	821 3370	777 3019	734 2694	692 2394	652 2126	⊕ PBR	100 m 186 m	-0,9 1,1	⊕ 4.0	-2,8 3,1	-9,6 -1,8	-21,0 -11,2	-37,6 -25,8	0				
2010011	101	0,000	[0]	1100	0100	0010	0010	2001	2001	2120	1 BIX	100 111	.,.	1,0	0,1	1,0	,2	20,0				-	
			_	-		_					7	E	. 7										
	-	-	-			-						x 5											****
																			~		•		
KS	8,0	600	V[m/s]	900	846	794	744	695	649	604	⊕ 	100 m	-0,8	⊕ 4.0	-3,1	-10,7	-23,3	-41,8	0	•		•	
211 73 39 ID Classic	123 10,5	0,290 600	E[J] V[m/s]	3240 800	2863 755	2522 711	2214 669	1932 629	1685 589	1459 551	PBR ⊕	181 m 100 m	1,2 -0,3	4,0 ⊕	2,9 -4,5	-2,6 -14,5	-13,3 -30,7	-29,7 -54,1	0				_
211 85 13	162	0,325	E[J]	3360	2993	2654	2350	2077	1821	1594	PBR	163 m	1,7	4,0	1,5	-6,5	-20,7	-42,0	<u> </u>				
6			_																			-	
	_	-	-	-							7	x 5	7 F	2									-
-	-		-	-		-	-					~ J		•									****
KS	8,0	600	V[m/s]	890	836	785	735	687	641	596	Ð	100 m	-0,7	Ð	-3,2	-11,0	-24,1	-43,1	0	•	•	0	
211 74 44	123	0,290	E[J]	3168	2796	2465	2161	1888	1644	1421	PBR	179 m	1,3	4,0	2,8	-3,0	-14,0	-30,9	0			<u> </u>	
TMR	9,0	600	V[m/s]	780	724	670	618	569	522	479	\oplus	100 m	-0,2		-5,3	-17,1	-36,5	-65,0	0		0	0	
211 74 87	139	0,255	E[J]	2738	2359	2020	1719	1457	1226	1032	PBR	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	\oplus	100 m	-0,3	\oplus	-4,7	-14,8	-31,1	-54,1	0	•	•	•	
211 85 48	162	0,381	E[J]	3194	2890	2609	2350	2117	1896	1694	PBR	161 m	1,7	4,0	1,3	-6,9	-21,2	-42,3	\sim				
ID Classic 211 85 64	10,5 162	600 0,325	V[m/s] E[J]	780 3194	736 2844	693 2521	651 2225	611 1960	572 1718	536 1508	⊕ PBR	100 m 159 m	-0,2 1,8	⊕ 4,0	-4,9 1,2	-15,6 -7,5	-32,9 -22,8	-57,7 -45,6	0			•	
211 65 64 HMK	11,2	600	V[m/s]	750	713	677	642	609	576	544	⊕ F DIN	100 m	-0,1	4,0 ⊕	-5,3	-16,5	-22,0	-59,6	0	•	•	0	
211 74 36	173	0,383	E[J]		2847	2567		2077	1858	1657	PBR	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	\oplus	100 m	-0,1	\oplus	-5,4	-16,8	-35,2	-61,3	0			0	
211 85 72	177	0,356	E[J]	3234	2899	2597	2319	2056	1823	1615	PBR	155 m	2,0	4,0	0,7	-8,8	-25,1	-49,2					
1		-		-																		1	-
-	_				-	-	-				7	mr	n F	len	n. I	Ма	g.						
THO	0.4	650	\/[re/e]	040	002	040	004	764	700	600	~	100	1.0-		2.5	0.7	10.0	24 5					
TMS 211 86 29	9,4 145	650 0,346	V[m/s] E[J]	940 4153	893 3748	848 3380	804 3038	761 2722	720 2436	680 2173	⊕ PBR	100 m 194 m	-1,0 1,1	⊕ 4,0	-2,5 3,6	-8,7 -0,7	-19,2 -9,1	-34,5 -22,4		•	•	•	
EVO	10,3	650	V[m/s]	895	855	817	780	743	708	674	⊕	100 m	-0,8	+,0 ⊕	-2,9	-9,7	-21,1	-37,3	0	•	•	•	•
231 65 30	159	0,399	E[J]		3765	3438		2843		2340	PBR	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		\bullet	0	•	
211 85 05	162	0,381	E[J]	4253	3874	3513	3186	2883	2602	2343	PBR	186 m	1,2	4,0	3,1	-1,8	-11,1	-25,4					
ID Classic						000	762	722	683	646		400	0.0		0.0		00.0	00.5					
211 84 91	11,5 177	650 0,356	V[m/s] E[J]	890 4555	846 4115	803 3708		2997		2400	⊕ 	100 m 183 m	-0,8 1,2	⊕ 4,0	-3,0 3,0	-10,3 -2,2	-22,2 -12,2	-39,5 -27,4		•			

		-						2
D Classic	10,5	650	V[m/s]	850	803	758	714	67
211 74 01	162	0,325	E[J]	3793	3385	3016	2676	237

Animal pictogram: \sum Capercaillie \longrightarrow Fox \bigwedge Roe deer \bigwedge Wild boar \bigwedge Red deer \bigwedge Elk \bigwedge Buffalo Rating: \bigcirc highly suitable \bigcirc well suited \bigcirc suitable, with limitations / $^{1)}$ BC = ballistic coefficient - $^{2)}$ V = velocity, E = Energy - $^{3)}$ PBR = point-blank 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.

BALLISTIC DATA 65

.280 Rem.

672	631	592		100 m	-0,6		-3,7	-12,2	-26,1	-46,3	0	0	•	•	0	
371	2090	1840	PBR	173 m	1,4	4,0	2,4	-4,1	-16,0	-34,2						
	¥				4 2											

66

231 54 34

Projectile Article No.	Weight q	Barrel length mm	V 2) E	0m	50m	100m	150m	200m	250m		⊕ •		50m	100m	150m	200m	250m	300m	2	*		<u> </u>	**
	gr	BC-Value 1)									PBR * ₃₎						_		74			ππ	Ka WV
Non-		-		-	~	_					_											F	
-	_	_					-		9		7	x 6	64										
*			-																				****
KS	8,0	650	V[m/s]	970	913	858	806	755	706	659	\oplus	100 m	-1,0	\oplus	-2,3	-8,4	-18,8	-34,2	0		•	0	
211 75 68	123	0,290	E[J]	3764	3334	2945	2599	2280	1994	1737	PBR	196 m	1,0	4,0	3,7	-0,4	-8,8	-22,1					
DK	10,0	650	V[m/s]	885	839	794	751	709	669	630	⊕ 	100 m	-0,8	⊕ 1.0	-3,1	-10,6	-23,0	-40,9	0	-			0
211 85 56	154	0,338	E[J]	3916	3520	3152	2820	2513	2238	1985	PBR	181 m	1,3	4,0	2,9	-2,6	-13,0	-28,8	\sim				
EVO 231 54 31	10,3 159	650 0.399	V[m/s] E[J]	880 3988	841 3642	803 3321	766 3022	730 2744	695 2488	661 2250	⊕ PBR	100 m 182 m	-0,8 1,2	⊕ 4,0	-3,0 2,9	-10,3 -2,4	-22,1 -12,2	-39,0 -27,2	0	•	•	•	•
231 54 51 KS	10,5	650	V[m/s]	880	839	800	761	724	687	652	+ DIX	102 m	-0,8	+,0 ⊕	-3,1	-10,4	-22,4	-39,6	0			0	0
211 84 75	162	0,381	E[J]	4066	3696	3360	3040	2752	2478	2232	PBR	182 m	1,2	4,0	2,9	-2,4	-12,4	-27,7	<u> </u>				
ID Classic	10,5	650	V[m/s]	880	832	786	742	698	657	616	⊕	100 m	-0,7	Ð	-3,2	-11,0	-23,7	-42,2	0	•	•	•	0
211 85 80	162	0,325	E[J]	4066	3634	3243	2890	2558	2266	1992	PBR	179 m	1,3	4,0	2,8	-2,9	-13,7	-30,2					
нмк	11,2	650	V[m/s]	850	810	772	734	698	662	628		100 m	-0,6	\oplus	-3,5	-11,5	-24,6	-43,3	0				0
211 75 17	173	0,383	E[J]	4046	3674	3338	3017	2728	2454	2209	PBR	176 m	1,4	4,0	2,6	-3,5	-14,5	-31,2					
TMR	11,2	650	V[m/s]	800	751	705	659	616	574	534	⊕ 	100 m	-0,3	⊕ 	-4,6	-14,9	-31,7	-55,9	0	•	0	0	0
211 75 41	173	0,301	E[J]	3584	3158	2783	2432	2125	1845	1597	PBR	161 m	1,7	4,0	1,4	-6,9	-21,7	-43,9	~				
ID Classic	11,5	650 0.356	V[m/s]	850 4154	807	766 3374	726 3031	687 2714	649 2422	612 2154	⊕ PBR	100 m 175 m	-0,6 1,4	⊕ 10	-3,6 2,5	-11,8 -3,7	-25,2 -15,1	-44,5 -32,4	0		•		•
211 85 99	177	0,300	E[J]	4104	3745	3374	3031	2714	2422	2104	FDR	17511	1,4	4,0	2,0	-3,1	-10,1	-32,4					
		_		-		_					_												Real Provide P
-						-		-	J			x 6)5 ł	<									
9	_																					4	
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	0	•	•	0	
211 76 30	123	0,290	E[J]	3460	3063	2696	2372	2079	1817	1578	PBR	186 m	1,1	4,0	3,2	-1,7	-11,4	-26,5	\sim				
DK	10,0 154	600 0.338	V[m/s] E[J]	865 3741	820 3362	776 3011	733 2686	692 2394	652 2126	613 1879	⊕ PBR	100 m 177 m	-0,7 1,3	⊕ 4.0	-3,4 2,6	-11,4 -3,3	-24,5 -14,4	-43,4 -31,3	0				0
212 33 63 EVO	10,3	650	L[0] V[m/s]	865	826	789	752	717	682	649	F DR ⊕	100 m	-0,7	4,0 ⊕	-3,2	-10,8	-23,2	-40,8	0				•
231 54 32	159	0.399	E[J]	3853	3514	3206	2912	2648	2395	2169	PBR	180 m	1,3	4,0	2,8	-2,8	-13,2	-28,8	$\overline{}$				
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	0		0	0	0
211 84 83	162	0,381	E[J]	3883	3530	3202	2898	2617	2357	2117	PBR	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	0		\bullet		0
211 86 02	162	0,325	E[J]	3974	3556	3170	2821	2500	2204	1941	PBR	177 m	1,3	4,0	2,7	-3,3	-14,4	-31,3					
НМК	11,2	600	V[m/s]	830	791	753	716	680	645	611	⊕	100 m	-0,5	0	-3,8	-12,4	-26,3	-46,1	0	•	•	•	0
211 75 92	173	0,383	E[J]	3858	3504	3175	2871	2589	2330	2091	PBR	172 m	1,5	4,0	2,3	-4,3	-16,2	-34,0	\sim		•		
TMR 211 76 22	11,2 173	600 0,301	V[m/s] E[J]	770 3320	722 2010	677 2567	633 2244	590 1949	549 1688	511 1462	⊕ PBR	100 m 156 m	-0,1 1,9	⊕ 4,0	-5,2 0,8	-16,6 -8,5	-35,0 -24,9	-61,6 -49,5	0	•	0	0	0
ID Classic	11,5	600	V[m/s]	820	778	738	698	660	623	587	• DIX	100 m	-0,5	+,0 ⊕	-4,0	-13,1	-27,8	-48,9	0				0
211 86 10	177	0,356	E[J]	3866	3480	3132		2505		1981	PBR	168 m	1,5	4,0	2,0	-5,1	-17,9	-36,9	<u> </u>				
~	_																						
					-						2	808	\\/;	n									المنطقي ا
1		_		-		-																	
	0.7	000	\/[070	040	700	704	075	<u></u>	507		400	0.7		25	44 7	05.0	45.0	~				
KS	9,7 150	600 0,298	V[m/s] ⊑rn	870 3671	818 3245	769 2868	721 2521	675 2210	630 1925	587 1671	⊕ PBR	100 m 175 m	-0,7 1,4	⊕ 4,0	-3,5 2,6	-11,7 -3,6	-25,3 -15,2	-45,2 -33,0	0	•	•	0	
211 77 03 ID Classic	9,7	600	E[J] V[m/s]	870	3245 819	2000	723	678	634	591	РБК ⊕	100 m	-0,7	4,0 ⊕	2,6 -3,5	-3,0 -11,7	-15,2 -25,2	-33,0 -44,8	0	•		•	
211 77 11	150	0,303	E[J]	3671	3253	2876	2535	2229	1949	1694	PBR	176 m	1,4	4,0	2,6	-3,6	-15,1	-32,7					
BIONIC YELLOW		600	V[m/s]	815	753	695	638	585	534	487		100 m	-0,3	÷	-4,8	-15,6	-33,6	-60,3	0	•	•	0	
231 58 30	154	0,239	E[J]	3321	2835	2415	2035	1711	1426	1186	PBR	160 m	1,7	4,0	1,3	-7,5	-23,5	-48,2					
DK	10,7	600	V[m/s]	800	750	702	656	611	569	528	\oplus	100 m	-0,3	\oplus	-4,7	-15,1	-32,1	-56,6	0			0	
211 79 08	165	0,293	E[J]	3424	3009	2637	2302	1997	1732	1491	PBR	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	0	•	•	0	
211 77 89	165	0,329	E[J]	3424	3058	2712	2409	2130	1875	1642	PBR	163 m	1,7	4,0	1,6	-6,4	-20,5	-41,6	~				
HMK	11,7	600 0 356	V[m/s]	780	739	700	662 2564	625 2285	589 2020	555 1802		100 m	-0,3 1 7	⊕ 10	-4,8 1 2	-15,1 7 2	-31,8 21.8	-55,5	0				0
211 76 65 UNI Classic	180 11,7	0,356 600	E[J] V[m/s]	3559 780	3195 739	2867 699	2564 660	2285 622	2029 586	1802 551	PBR ⊕	160 m 100 m	1,7 -0,3	4,0 ⊕	1,2 -4,8	-7,2 -15,2	-21,8 -32,0	-43,6 -55,9	0	•		•	0
211 91 96	180	0,350	E[J]	3559	3195	2858	2548	2263	2009	1776	₽BR	160 m	-0,3 1,8	⊕ 4,0	-4,0 1,3	-15,2	-32,0 -21,9	-55,9	0				
EVO	11,9	600	V[m/s]	775	736	697	660	625	590	557	⊕	100 m	-0,2	+,0 ⊕	-4,8	-15,3	-32,0	-55,9	0		•	•	•
							_			_							,					_	

184 0,366 E[J] 3574 3223 2891 2592 2324 2071 1846 PBR 159 m 1,8 4,0 1,1 -7,4 -22,1 -43,9

Animal pictogram: 🎾 Capercaillie 💉 Fox 🥂 Roe deer 🖛 Wild boar 👬 Red deer 就 Elk 🥳 Buffalo Rating: \bigcirc highly suitable \bigcirc well suited \bigcirc suitable, with limitations $/ \overset{1}{}$ BC = ballistic coefficient $-\overset{2}{}$ V = velocity, E = Energy $-\overset{3}{}$ PBR = point-blank 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. BALLISTIC DATA 67

10m	250m		⊕ PBR * _{3]}		50m	100m	150m	200m	250m	300m	2	R		RA	**
			.3	80 -	06										
709	663	619		100 m	-0,8		-3,0	-10,2	-22,3	-40,1	0	\bullet	\bullet	0	
438	2132	1858	PBR	183 m	1,2	4,0	3,0	-2,3	-12,4	-28,2					
712	667	623		100 m	-0,8		-2,9	-10,1	-22,2	-39,8	0				0
459	2158	1882	PBR	184 m	1,2	4,0	3,1	-2,1	-12,2	-27,8					
643	589	538		100 m	-0,7		-3,6	-12,2	-26,8	-48,6	0				0
067	1735	1447	PBR	173 m	1,4	4,0	2,5	-4,2	-16,7	-36,4					
692	651	611		100 m	-0,7		-3,4	-11,3	-24,4	-43,2	0	•		0	0
562	2267	1997	PBR	177 m	1,3	4,0	2,7	-3,2	-14,3	-31,1					
671	626	583		100 m	-0,7		-3,5	-11,8	-25,6	-45,6	0	•	•	•	0
409	2097	1818	PBR	175 m	1,4	4,0	2,5	-3,7	-15,4	-33,5					
678	640	604		100 m	-0,6		-3,7	-12,2	-26,1	-45,9	0	•		•	0
689	2396	2134	PBR	172 m	1,4	4,0	2,3	-4,2	-16,0	-33,8					
675	637	600		100 m	-0,6		-3,7	-12,3	-26,2	-46,2	0	•		•	0
665	2374	2106	PBR	172 m	1,4	4,0	2,3	-4,2	-16,2	-34,1					
678	641	606		100 m	-0,6		-3,8	-12,3	-26,3	-46,2	0				0
735	2445	2185	PBR	171 m	1,4	4,0	2,2	-4,4	-16,3	-34,2					
625	589	555		100 m	-0,3		-4,8	-15,1	-31,8	-55,5	0			0	0
539	2255	2002	PBR	160 m	1,7	4,0	1,2	-7,1	-21,8	-43,5					
643	609	576		100 m	-0,3		-4,5	-14,3	-30,1	-52,5	0				0
687	2411	2157	PBR	163 m	1,7	4,0	1,5	-6,3	-20,1	-40,4					

.30 R Blaser

'17	671	627		100 m	-0,9		-2,8	-9,9	-21,7	-39,0	0	•	•	•	0	
193	2184	1907	PBR	185 m	1,1	4,0	3,1	-1,9	-11,8	-27,1						
697	651	607		100 m	-0,8		-3,1	-10,6	-23,2	-41,7	0				0	
599	2267	1971	PBR	181 m	1,2	4,0	3,0	-2,6	-13,1	-29,5						
693	654	617		100 m	-0,7		-3,4	-11,5	-24,6	-43,5	0				0	
309	2502	2227	PBR	176 m	1,4	4,0	2,6	-3,4	-14,5	-31,4						
691	654	618		100 m	-0,6		-3,5	-11,7	-25,0	-44,1	0				\bullet	
341	2545	2272	PBR	174 m	1,4	4,0	2,4	-3,8	-15,1	-32,2						
643	606	572		100 m	-0,4		-4,4	-14,1	-29,7	-52,1	0	•	•	•	•	
687	2387	2127	PBR	164 m	1,7	4,0	1,7	-6,0	-19,6	-40,0						

.300 Win. Mag.

79	735	693		100 m	-1,0		-2,2	-8,0	-17,9	-32,3	0	•			0	
247	2890	2569	PBR	198 m	0,9	4,0	3,7	-0,2	-8,1	-20,5						
57	709	662		100 m	-1,0		-2,3	-8,4	-18,7	-34,0	0	\bullet			•	
66	2689	2345	PBR	194 m	0,9	4,0	3,5	-0,6	-9,1	-22,4						
63	723	683		100 m	-1,0		-2,4	-8,7	-19,1	-34,3	0	•	•	•		
06	3058	2729	PBR	192 m	1,0	4,0	3,4	-0,9	-9,4	-22,6						
62	722	685		100 m	-0,9		-2,5	-8,9	-19,4	-34,7	0	•			•	
55	3102	2792	PBR	192 m	1,0	4,0	3,4	-0,9	-9,5	-22,8						

.300 WSM

														100		
'62	722	685		100 m	-0,9		-2,5	-8,9	-19,4	-34,7	0	•	•	•	0	
155	3102	2792	PBR	192 m	1,0	4,0	3,4	-0,9	-9,5	-22,8						



GECO - ALL YOU NEED



Projectile Article No.	Weight g	Barrel length mm	V 2) E	0m	50m	100m	150m	200m	250m		⊕ PBR * 3		50m	100m	150m	200m	250m	300m	2	d		-	
·	gr	BC-Value 1)		_																			
-		-			-		-				8	x 5	57 J	IS									and the second second
-		_																				4	918249
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	0	•	•	•	•
212 34 95	180	0,282	E[J]	3934	3441	3007	2610	2263	1948	1668	PBR	164 m	1,6	4,0	1,6	-6,2	-20,5	-42,1					
НМК	12,1	600	V[m/s]	800	755	712	670	629	590	553	\oplus	100 m	-0,3	\oplus	-4,5	-14,5	-30,7	-54,0	0	•	•		•
211 79 16	187	0,326	E[J]	3872	3449	3067	2716	2394	2106	1850	PBR	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	0	0	0	•	0
211 79 32	196	0,288	E[J]	3963	3477	3032	2634	2286	1970	1691	PBR	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	\oplus	100 m	-0,4	\oplus	-4,4	-14,0	-29,6	-51,9	0	•		•	•
211 92 26	198	0,360	E[J]	4096	3687	3318	2968	2654	2366	2101	PBR	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	0	•	•	•	0
231 62 01	200	0,350	E[J]	3464	3095	2763	2458	2179	1924	1697	PBR	151 m	2,1	4,0	0,2	-10,2	-27,8	-53,8					
	_			-	_		_															1	-
-	-	-	-		-	-					8	x 5	57 J	IRS									100.00
<u> </u>	-			-																			
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	0	\bullet	•	\bullet	0
212 35 09	180	0,282	E[J]	3379	2949	2556	2213	1901	1631	1393	PBR	153 m	2,0	4,0	0,5	-9,6	-27,2	-53,7					
НМК	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	0				•
211 79 83	187	0,326	E[J]	3587	3189	2831	2501	2200	1931	1687	PBR	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	0	•	0	•	0
211 80 09	196	0,288	E[J]	3384	2954	2569	2218	1907	1645	1409	PBR	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	\oplus	-5,4	-16,8	-35,0	-61,0	0			\bullet	•
211 92 34	198	0,360	E[J]	3600	3235	2899	2589	2304	2043	1811	PBR	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	0	•	•	•	0
231 62 00	200	0,350	E[J]	3370	3006	2679	2387	2112	1867	1645	PBR	149 m	2,2	4,0	-0,1	-10,9	-29,3	-56,2					
M		_		-																		1	-
	-					-	-				8	x 6	58 9	5									and the second se
14 L	-		_	-	-																	4	
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		0	•	•	•
211 81 49	180	0,310	E[J]	5734	5125	4572	4059	3605	3186	2809	PBR	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		0	•	•	•
212 35 17	180	0,282	E[J]	5224	4603	4050	3550	3100	2697	2337	PBR	190 m	1,1	4,0	3,4	-1,3	-10,6	-25,2					
нмк	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		0	•	•	•
211 81 14	187	0,326	E[J]	5692	5110	4579	4098	3653	3251	2880	PBR	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		0	•		•
231 65 22	200	0,350	E[J]	5442	4909	4424	3985	3569	3194	2849	PBR	187 m	1,1	4,0	3,2	-1,6	-10,9	-25,1					
KS	14,5	650	V[m/s]	870	825	782	739	699	659	621		100 m	-0,7		-3,3	-11,1	-24,0	-42,5		0	•	•	•
211 81 22	224	0,343	E[J]	5488	4935	4434	3959	3542	3149	2796	PBR	178 m	1,3	4,0	2,7	-3,1	-13,9	-30,4					

Projectile Article No.	Weight g gr	Barrel length mm BC-Value 1)	V 2) E	0m	50m	100m	150m	200m	250m		⊕ PBR * ₃)	50m	100m	150m	200m	250m	300m	2	R		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	M M
		_									0	x 5	7 1	C									E
-	-	-	-	-	_		_				0	XJ)	3									aniza 🖂
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	0	•	•	•	0
212 34 95	180	0,282	E[J]	3934	3441	3007	2610	2263	1948	1668	PBR	164 m	1,6	4,0	1,6	-6,2	-20,5	-42,1					
НМК	12,1	600	V[m/s]	800	755	712	670	629	590	553	\oplus	100 m	-0,3	\oplus	-4,5	-14,5	-30,7	-54,0	0			•	•
211 79 16	187	0,326	E[J]	3872	3449	3067	2716	2394	2106	1850	PBR	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	0	\bullet	\bullet	•	•
211 79 32	196	0,288	E[J]	3963	3477	3032	2634	2286	1970	1691	PBR	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	\oplus	100 m	-0,4	\oplus	-4,4	-14,0	-29,6	-51,9	0				•
211 92 26	198	0,360	E[J]	4096	3687	3318	2968	2654	2366	2101	PBR	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	0	•	•	•	0
231 62 01	200	0,350	E[J]	3464	3095	2763	2458	2179	1924	1697	PBR	151 m	2,1	4,0	0,2	-10,2	-27,8	-53,8					
1																							
-	-	-			-	-	-				8	x 5	57 J	RS									No. of Concession, Name
<u>}</u>	-	_		-																			1002.000
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	0	•	•	0	0
212 35 09	180	0,282	E[J]	3379	2949	2556	2213	1901	1631	1393	PBR	153 m	2,0	4,0	0,5	-9,6	-27,2	-53,7					
НМК	12,1	600	V[m/s]	770	726	684	643	603	565	528	\oplus	100 m	-0,2	\oplus	-5,1	-16,1	-33,9	-59,4	0		•		•
211 79 83	187	0,326	E[J]	3587	3189	2831	2501	2200	1931	1687	PBR	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	0	•	0	\bullet	0
211 80 09	196	0,288	E[J]	3384	2954	2569	2218	1907	1645	1409	PBR	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	\oplus	-5,4	-16,8	-35,0	-61,0	0		•	•	•
211 92 34	198	0,360	E[J]	3600	3235	2899	2589	2304	2043	1811	PBR	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	0	•	•	•	0
231 62 00	200	0,350	E[J]	3370	3006	2679	2387	2112	1867	1645	PBR	149 m	2,2	4,0	-0,1	-10,9	-29,3	-56,2					
1																						F	-
-	-		-				-				8	x 6	58 S	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		0	•	•	•
211 81 49	180	0,310	E[J]	5734	5125	4572	4059	3605	3186	2809	PBR	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		0			•
212 35 17	180	0,282	E[J]	5224	4603	4050	3550	3100	2697	2337	PBR	190 m	1,1	4,0	3,4	-1,3	-10,6	-25,2					
нмк	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		0	•		•
211 81 14	187	0,326	E[J]	5692	5110	4579	4098	3653	3251	2880	PBR	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	\oplus	100 m	-0,9	\oplus	-2,7	-9,5	-20,7	-36,9		0	•		•
231 65 22	200	0,350	E[J]	5442	4909	4424	3985	3569	3194	2849	PBR	187 m	1,1	4,0	3,2	-1,6	-10,9	-25,1					
KS	14,5	650	V[m/s]	870	825	782	739	699	659	621		100 m	-0,7		-3,3	-11,1	-24,0	-42,5		0	•	•	•
211 81 22	224	0,343	E[J]	5488	4935	4434	3959	3542	3149	2796	PBR	178 m	1,3	4,0	2,7	-3,1	-13,9	-30,4					

Handgun Cartridges

The range of GECO handgun cartridges is continually being re- namic shooting, hunting and self defence. Whatever the discipline viewed and expanded to meet the needs of all handgun shooters. or requirement the GECO range of handgun cartridges offers you A wide range of cartridges is now available for static shooting, dy- an answer, choose from 12 different calibers and 5 bullet types.

Animal pictogram: \sim Capercaillie \sim Fox \sim Fox \sim Roe deer \sim Wild boar \sim Red deer \sim Elk \sim Buffalo Rating: \bigcirc highly suitable \bigcirc well suited \bigcirc suitable, with limitations $/ {}^{1}$ BC = ballistic coefficient $- {}^{2}$ V = velocity, E = Energy $- {}^{3}$ PBR = point-blank 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.

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Soft iron shotshells for environmentally friendly hunters

of shotgun cartridges is a priority for shooters.

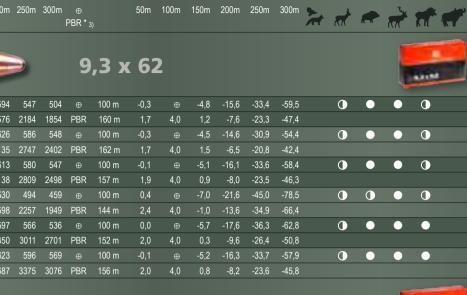
However it is still important that as far as possible the perfor- minimal environmental impact.

Today hunters are concerned and are knowledgeable about mance of the cartridge should not be compromised. This is why what is good for nature and so the environmental compatibility so many hunters choose Rottweil steel game; carefully selected and tuned components guarantee excellent performance with

Projectile Article No.		Barrel length	V 2) E	0m	50m	100m	150m	200m	250m	300m	⊕ PBR * 3)		50m	100m	150m	200m	250m	300m	zt	R			
<u> </u>	gr	BC-Value 1)		_							,												-
							-	-			9,	,3 x	62										inine.
DK	14,6	600	V[m/s]	800	745	693	642	594	547	504	Ð	100 m	-0,3		-4,8	-15,6	-33,4	-59,5		0	•	•	•
211 81 65	225	0,266	E[J]	4672	4052		3009	2576	2184	1854		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	⊕ 4.0	-4,5	-14,6	-30,9	-54,4					
211 81 81 HMK	247 16,7	0,320 600	E[J] V[m/s]	5120 760	4548 721	4033 684	3559 648	3135 613	2747 580	2402 547	PBR ⊕	162 m 100 m	1,7 -0,1	4,0 ⊕	1,5 -5,1	-6,5 -16,1	-20,8 -33,6	-42,4 -58,4	_	0			•
211 82 03	258	0,372	E[J]	4823	4341	3907	3506	3138	2809	2498		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	Ð	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	PBR	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	\oplus	100 m	0,0	\oplus	-5,7	-17,6	-36,3	-62,8		\bullet	•		•
231 54 36	291	0,400	E[J]	5009	4540		3707	3350	3011	2701	PBR	152 m	2,0	4,0	0,3	-9,6	-26,4	-50,8					
UNI Classic	19,0	600	V[m/s]	740	710		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	PBR	156 m	2,0	4,0	0,8	-8,2	-23,6	-45,8	_				
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	-	_	_	-																		L.	
DK	14,6	650	V[m/s]	900	841	785	730	678	628	580	Ð	100 m	-0,8		-3,2	-11,1	-24,3	-43,7		0	•	•	•
211 81 73	225	0,266	E[J]	5913	5163	4498	3890	3356	2879	2456	PBR	179 m	1,2	4,0	2,8	-3,0	-14,2	-31,7					
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		0			
211 92 50	293	0,465	E[J]	5854	5401	4966	4562	4189	3843	3512	PBR	165 m	1,7	4,0	1,7	-5,8	-18,8	-37,9					
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				705	70.1	070		504	500	100		100			- 1	10.5	05.0						2
DK	14,6 225	600 0,266	V[m/s]	785 4498	731 3901	679 3366	629 2888	581 2464	536 2097	493 1774	⊕ PBR	100 m 157 m	-0,2 1,8	⊕ 4.0	-5,1 0,9	-16,5 -8,4	-35,2 -25,1	-62,4 -50,3		0	•	•	0
211 81 57 KS	16,0	600	E[J] V[m/s]	750	706	663	622	582	545	509	F DI∖ ⊕	100 m	0.0	4,0 ⊕	-5,6	-17,5	-23,1	-64,1					•
211 82 97	247	0,320	E[J]	4500	3987	3517	3095	2710	2376	2073		154 m	2,0	4,0	0,6	-9,3	-26,4	-51,8					
НМК	16,7	600	V[m/s]	730	693	656	621	587	554	523	Ð	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	PBR	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		\bullet	\bullet		\bullet
211 82 70	285	0,309	E[J]	4468	3920	3431	2995	2598	2257	1949	PBR	144 m	2,4	4,0	-1,0	-13,6	-34,9	-66,4					
EVO	18,8	600	V[m/s]	700	666		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				2741		PBR	147 m	2,3	4,0	-0,4	-11,6	-30,4	-57,6					
UNI Classic	19,0 293	600 0,465	V[m/s] E[J]	695 4589	666 4214		610 3535	582 3218	556 2037	531 2670		100 m 148 m	0,3 2,3	⊕ 4,0	-6,3 -0,3	-19,2 -11,2	-39,4 -29,4	-67,5 -55,5		0		•	•
211 92 77	295	0,403	∟[J]	4009	42 14	3033	5555	5210	2931	2019	FDI	140 111	2,5	4,0	-0,5	-11,2	-23,4	-00,0					
						-	-				_												
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100	_		_	-	-	-	-															4	- and provide the
KS	19,4	650	V[m/s]	765	729	695	661	629	597	565	Ð	100 m	-0,2	Ð	-4,9	-15,4	-32,1	-55,7			•	•	•
	299	0,403	E[J]			4685			3457		PBR	159 m	1,8	4,0	1,1	-7,4	-22,1	-43,7					
		650	V[m/s]	760	717	676	636	598	561	526	⊕	100 m	-0,1	\oplus	-5,3	-16,6	-34,8	-60,9					
211 84 59	19,5	650					3944	3487	3069	2698	PBR	155 m	1,9	4,0	0,7	-8,7	-24,9	-49,0					
211 84 59 UNI Classic	19,5 301	0,334	E[J]	5632	5012	4456	0011																
211 84 59 UNI Classic 211 83 78	_			5632	5012	4456	0011																
211 84 59 UNI Classic	_			5632	5012	4456						104	Di	nla									
211 84 59 UNI Classic	_			5632	5012	4456					.4	104	Rin	nle	ess								
211 84 59 UNI Classic	_			5632	5012	4456					.4	104	Rin	nle	ess								
211 84 59 UNI Classic 211 83 78	_	0,334	E[J]	5632	5012	4456 625	587	551	516	483	_4	1 00 m	Rin	nle •		-20,3	-42,1	-73,2			•		
211 84 59 UNI Classic 211 83 78	301	0,334		705	664		587								-6,6	-20,3	-42,1 -32,1	-73,2 -61,2			•		•
211 84 59 UNI Classic	301	0,334	E[J] V [m/s]	705	664	625 5078	587				⊕ PBR	100 m	0,3		-6,6	-20,3					•	•	•

Animal pictogram: \sim Capercaillie \sim Fox \sim Fox \sim Roe deer \sim Wild boar \sim Red deer \sim Elk \sim Buffalo Rating: \bigcirc highly suitable \bigcirc well suited \bigcirc suitable, with limitations $/ {}^{1}$ BC = ballistic coefficient $- {}^{2}$ V = velocity, E = Energy $- {}^{3}$ PBR = point-blank 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.

BALLISTIC DATA 71







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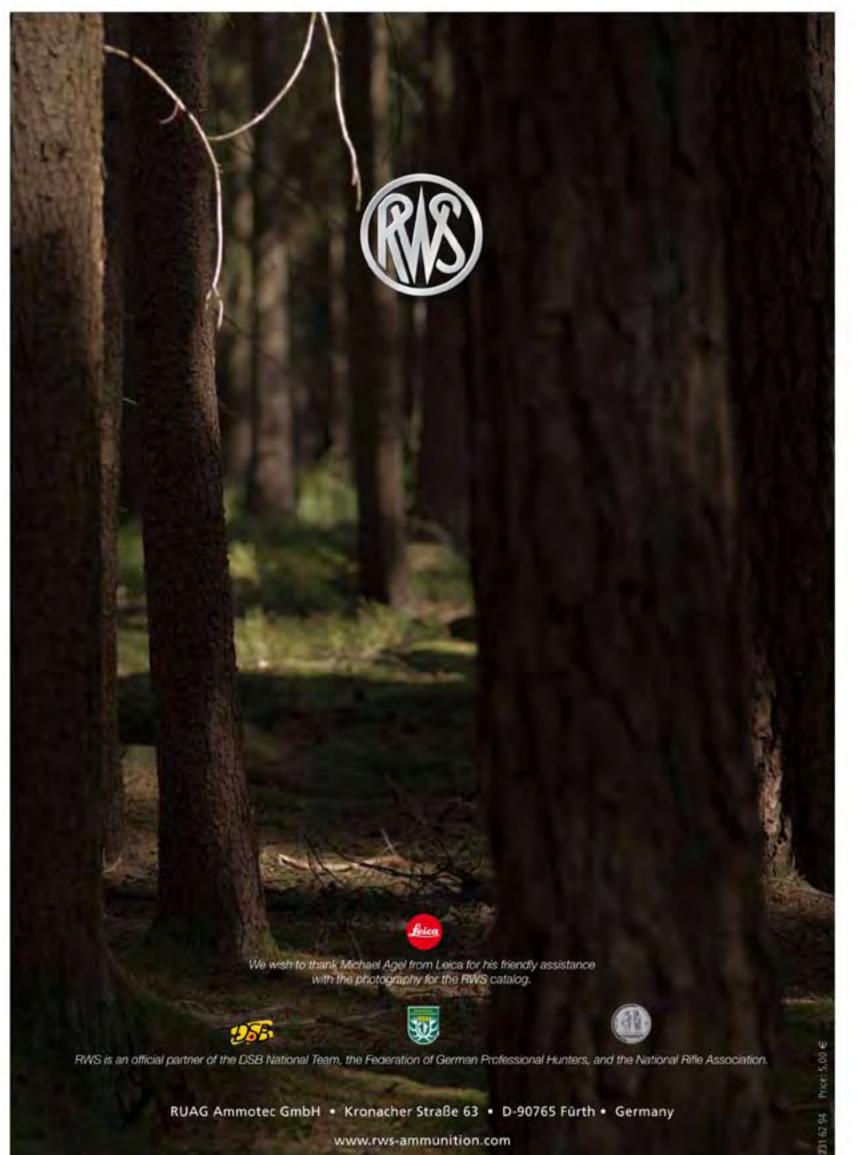
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