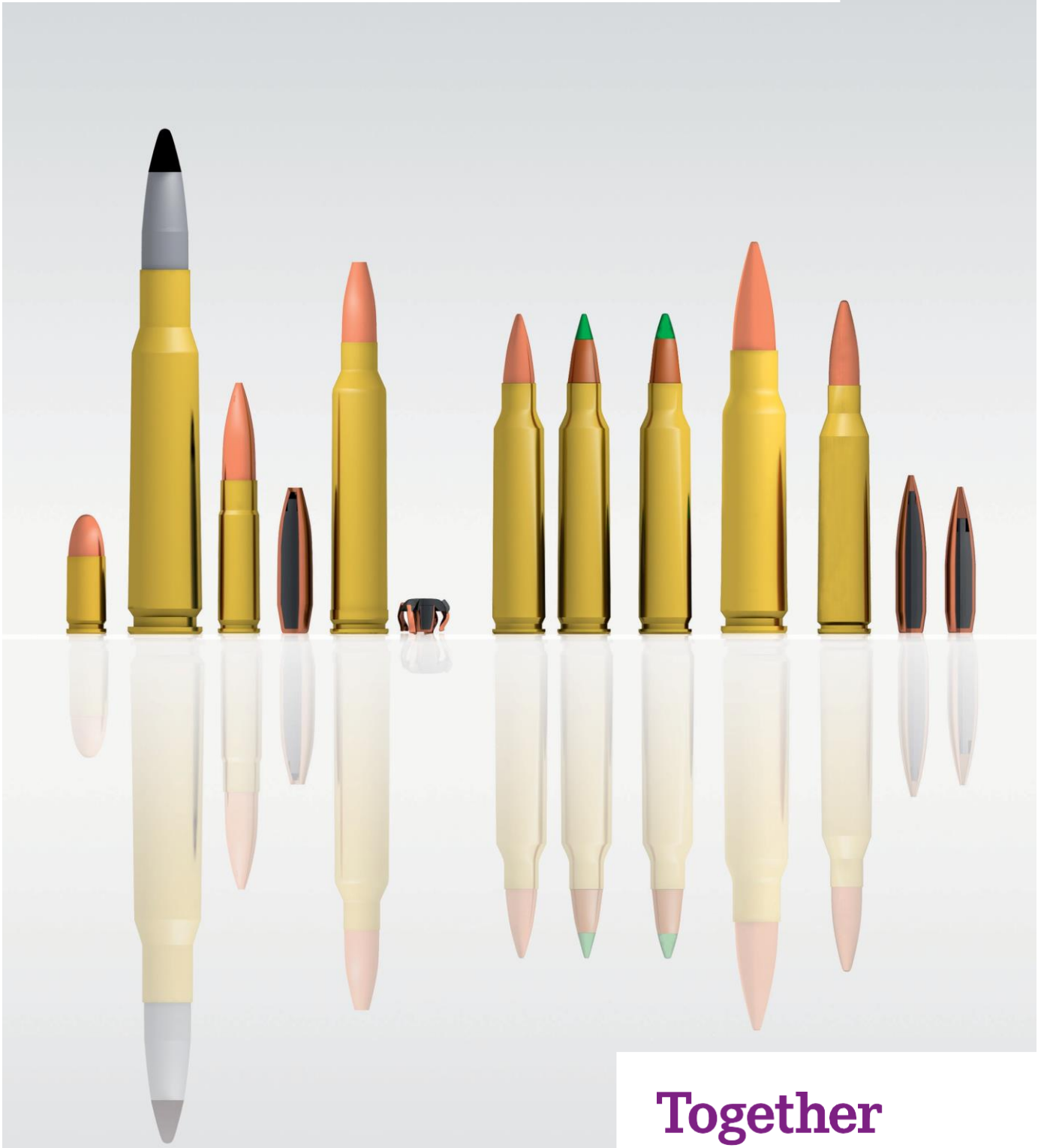
Fact Sheets
Defence & Law Enforcement



Together ahead. RUAG

02.2014

Preface

We are happy to present you our new reference book 'Fact Sheets Defence and Law Enforcement'. It contains detailed information regarding RUAG Ammotec's product range.

We try to keep the data free from errors. However, should you find a mistake please report it to the Product Management.

The headstamps and markings shown on the pictures are for product identification only and do not match the real ones.

Technical specification and numerical data are given for information only and are of no contractual nature.

We hope this reference book is of great value to you.

Best regards,

the Product Management Team

Thun, February 24, 2014

Content

65 RUAG SWISS P
The Sniper's Choice

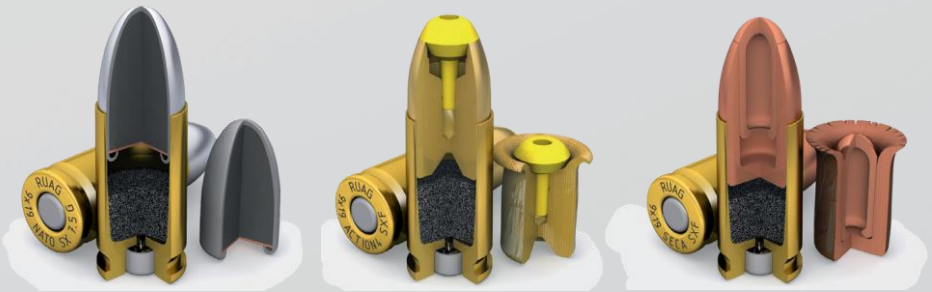
105 Artillery Training

111 Mortar Training

115 Hand Grenade

125 Smoke

Pistol and Submachine Gun Ammunition



Together ahead. RUAG

9x19 FMJ
8.0 g / 124 gr

Cost effective CIP-approved versatile round

Preserves the weapon's service life

Trusted by Law Enforcement & Armed Forces worldwide

Application

The FMJ round is an excellent value for a training and service round with high reliability and good accuracy.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol

Cartridge	**9x19 / 9mm Luger**
projectile	FMJ, 8.0 g / 124 gr
projectile material	Cu-coated steel jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	12.3 g

Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 2 350 bar	(21°C)
muzzle velocity	380 m/s (1 247 fps)	200 mm barrel
muzzle energy	575 J	
accuracy at 50 m	H ; V ≤ 200 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

Technical specification and numerical data are given as an indication only and are of no contractual nature.
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Tel. +41 332 282 879 | Fax +41 332 282 644 | sales.ammotec@ruag.com | **www.ruag.com**

9x19 FMJ SX
8.0 g / 124 gr

CIP-approved round minimises exposure to lead

Reliable in extreme environmental conditions

Preserves the weapon's service life

Trusted by Law Enforcement & Armed Forces worldwide

SINTOX
non toxic

Application

The FMJ SX with 8.0 g bullet is the top-selling FMJ round from RUAG Ammotec and offers outstanding reliability. It is used both for training and in theatre worldwide.

Reducing the shooters exposure to pollutants is an essential concern for RUAG Ammotec. Due to the heavy metal-free SINTOX® primer and the totally encapsulated bullet core, no pollutants are released near the shooter. This is not only important when shooting indoors, but also outdoors where shooters may face head- or crosswinds.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol.

Cartridge	**9x19 / 9mm Luger**	
projectile	FMJ, 8.0 g / 124 gr	
projectile material	totally encapsulating tombac jacket, lead core	
primer / propellant	SINTOX® - non toxic / double base powder	
case material	CuZn - alloy	
cartridge weight	12.3 g	

Performance		
term of reference	C.I.P.	
temperature range	-30°C to +52°C	
mean chamber pressure	max. 2 350 bar	(21°C)
muzzle velocity	370 m/s (1 214 fps)	150 mm barrel
muzzle energy	545 J	
accuracy at 25 m	100% radius ≤ 50 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 FMJ SX
7.5 g / 115 gr

Reduced recoil for faster target reacquisition

CIP-approved round minimises exposure to lead

Reliable in extreme environmental conditions

Preserves the weapon's service life

Trusted by Law Enforcement & Armed Forces worldwide

SINTOX
non toxic

Application

The FMJ SX with 7.5 g bullet has reduced recoil allowing faster target reacquisition.

Reducing the shooters exposure to pollutants is an essential concern for RUAG Ammotec. Due to the heavy metal-free SINTOX® primer and the totally encapsulated bullet core, no pollutants are released near the shooter. This is not only important when shooting indoors, but also outdoors where shooters may face head- or crosswinds.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol.

Cartridge	**9x19 / 9mm Luger**
projectile	FMJ, 7.5 g / 115 gr
projectile material	totally encapsulating tin plated steel jacket, lead core
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	11.9 g

Performance		
term of reference	C.I.P.	
temperature range	-30°C to +52°C	
mean chamber pressure	max. 2 350 bar	(21°C)
muzzle velocity	380 m/s (1 247 fps)	150 mm barrel
muzzle energy	540 J	
accuracy at 50 m	H ; V ≤ 200 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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Tel. +41 332 282 879 | Fax +41 332 282 644 | sales.ammotec@ruag.com | **www.ruag.com**

9x19 FMJ SXF (+P)
8.0 g / 124 gr

Custom marking agent facilitates forensic analysis

+Power for improved weapon performance

Reliable in extreme environmental conditions

Preserves the weapon's service life

SINTOX FORENSIC
non toxic

Application

The FMJ SXF (+P) has been specifically developed to meet the requirements of the German Technical Guideline for reduced pollutant ammunition.

Reducing the shooters exposure to pollutants is an essential concern for RUAG Ammotec. Due to the heavy metal-free SINTOX® primer and the totally encapsulated bullet core, no pollutants are released near the shooter. This is not only important when shooting indoors, but also outdoors where shooters may face head- or crosswinds.

The marking agent Gadolinium has been added to the primer. This enables forensics to run analyses about the use of the ammunition and determination of the shooting distance.

Cartridge	**9x19 / 9mm Luger**
projectile	FMJ, 8.0 g / 124 gr
projectile material	totally encapsulating tin-coated steel jacket, lead core
primer / propellant	SINTOX®-FORENSIS - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	12.3 g

Performance		
term of reference	TR	
temperature range	-30°C to +52°C	
mean chamber pressure	max. 2 700 bar	(21°C)
muzzle velocity	350 m/s (1 148 fps)	100 mm barrel
muzzle energy	490 J	
accuracy at 25 m	$s_a \leq 25$ mm, 30 rounds	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 LF FMJ SXF (+P)

6.5 g / 100 gr

Lead-free bullet and primer reduce pollution

Reduced wear and strain on the barrel maintains accuracy over the weapon's life

Reliable in extreme environmental conditions

+Power for improved weapons performance

Custom markingagent facilitates forensic analysis

SINTOX FORENSIC non toxic

LEAD FREE

Application

The LF FMJ SXF (+P) has been developed as a training version of the deformation round SECA sharing the same bullet weight and trajectory. However it is also perfect as lead-free service round.

The special design with two interlocking cups ensures consistently high quality.

Reducing the shooters exposure to pollutants is an essential concern for RUAG Ammotec. Due to the heavy metal-free SINTOX® primer and the totally encapsulated bullet core, no pollutants are released near the shooter. This is not only important when shooting indoors, but also outdoors where shooters may face head- or crosswinds.

The marking agent Gadolinium has been added to the primer. This enables forensics to analyse the use of the ammunition and determine the shooting distance.

Cartridge	**9x19 / 9mm Luger**	
projectile	FMJ, 6.5 g / 100 gr	
projectile material	CuZn - alloy	
primer / propellant	SINTOX®-FORENSIS - non toxic / double base powder	
case material	CuZn - alloy	
cartridge weight	11.0 g	

Performance		
term of reference	TR	
temperature range	-54°C to +52°C	
mean chamber pressure	max. 2 700 bar	(21°C)
muzzle velocity	400 m/s (1 312 fps)	100 mm barrel
muzzle energy	520 J	
accuracy at 25 m	$s_a \leq 25$ mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

Technical specification and numerical data are given as an indication only and are of no contractual nature.
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9x19 NATO FMJ

8.0 g / 124 gr

Cost effective NATO-approved versatile round

Preserves the weapon's service life

Excellent value for training and service

Trusted by Armed Forces worldwide

Application

The NATO FMJ is specifically designed to meet all the requirements of Armed Forces.

Special attention was given to ensuring the cartridge's reliability and accuracy in a wide range of environmental conditions.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol.

Cartridge	**9x19 / 9mm Luger**
projectile	FMJ, 8.0 g / 124 gr
projectile material	tombac plated steel jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	12.3 g

Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 2 850 bar	(21°C)
muzzle velocity	395 m/s (1 296 fps)	200 mm barrel
muzzle energy	620 J	
accuracy at 46 m	s_H ; $s_V \leq 50$ mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 NATO FMJ SX

8.0 g / 124 gr

NATO-approved round minimises exposure to lead

Reliable in extreme environmental conditions

Preserves the weapon's service life

Trusted by Armed Forces worldwide

SINTOX non toxic

Application

The NATO FMJ SX is specifically designed to meet all the requirements of Armed Forces.

Special attention was given to ensuring the cartridge's reliability and accuracy in a wide range of environmental conditions.

Reducing the shooters exposure to pollutants is an essential concern for RUAG Ammotec. Due to the heavy metal-free SINTOX® primer and the totally encapsulated bullet core, no pollutants are released near the shooter. This is not only important when shooting indoors, but also outdoors where shooters may face head- or crosswinds.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol.

Cartridge	**9x19 / 9mm Luger**
projectile	FMJ, 8.0 g / 124 gr
projectile material	totally encapsulating tin-coated steel jacket, lead core
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	12.3 g

Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 2 850 bar	(21°C)
muzzle velocity	395 m/s (1 296 fps)	200 mm barrel
muzzle energy	620 J	
accuracy at 46 m	s_H ; $s_V \leq 50$ mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 NATO FMJ SX
7.5 g / 115 gr

Reduced recoil for faster target reacquisition

NATO-approved round minimises exposure to lead

Reliable in extreme environmental conditions

Preserves the weapon's service life

Trusted by Armed Forces worldwide

SINTOX non toxic

Application

The NATO FMJ SX is specifically designed to meet all the requirements of Armed Forces. The 7.5 g bullet has reduced recoil allowing faster target reacquisition.

Special attention was given to ensuring the cartridge's reliability and accuracy in a wide range of environmental conditions.

Reducing the shooters exposure to pollutants is an essential concern for RUAG Ammotec. Due to the heavy metal-free SINTOX® primer and the totally encapsulated bullet core, no pollutants are released near the shooter. This is not only important when shooting indoors, but also outdoors where shooters may face head- or crosswinds.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol.

Cartridge	**9x19 / 9mm Luger**
projectile	FMJ, 7.5 g / 115 gr
projectile material	totally encapsulating tin-plated steel jacket, lead core
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	11.9 g

Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 2 850 bar	(21°C)
muzzle velocity	405 m/s (1 328 fps)	200 mm barrel
muzzle energy	615 J	
accuracy at 46 m	s_H ; $s_V \leq 50$ mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 SECA SXF

6.4 g / 99 gr

Most versatile lead-free deformation round

Defined target effect minimises collateral damage

Designed for perfect weapon's feed

Custom marking agent facilitates forensic analysis

SINTOX FORENSIC non toxic

LEAD FREE

Application

The SECA is an all purpose deformation round which has been specifically developed to meet the requirements of the German Technical Guideline for reduced pollutant ammunition.

The special design with two interlocking cups ensures consistently high quality.

The SECA round does not have a traditional hollow-point. The inner cup is pushed back upon impact and makes way for the active area of the hollow-point. This ensures undisturbed deformation and perfect feeding in the weapon.

Additionally, the SECA has minimal deflection when shooting through angled glass, has good penetration on hard targets and will punch a clean hole in a tyre wall causing deflation within a few seconds.

Cartridge	**9x19 / 9mm Luger**
projectile	JDP, 6.4 g / 99 gr
projectile material	CuZn - alloy
primer / propellant	SINTOX®-FORENSIS - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	11.0 g

Performance		
term of reference	TR	
temperature range	-30°C to +52°C	
mean chamber pressure	max. 2 700 bar	(21°C)
muzzle velocity / energy	400 m/s (1 312 fps) / 510 J	100 mm barrel
accuracy at 25 m	$s_a \leq 25$ mm	
penetration in 20% gelatine	≤ 30 cm	
energy deposition	max. 60 J/cm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 ACTION 4 SXF

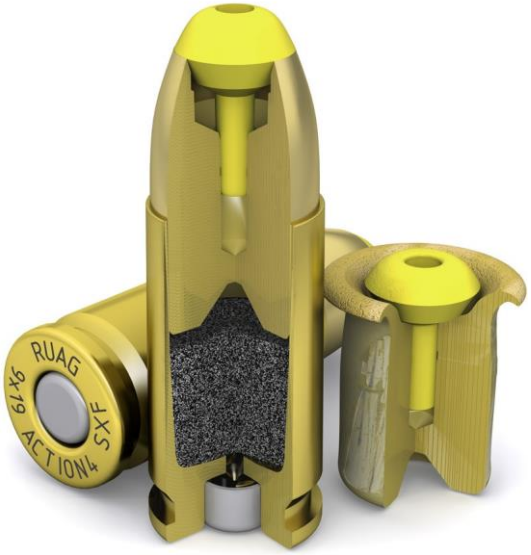
6.1 g / 94 gr

Most versatile lead-free deformation round

Defined target effect minimises collateral damage

Designed for perfect weapon's feed

Custom marking agent facilitates forensic analysis



SINTOX FORENSIC non toxic

LEAD FREE

Application

ACTION 4 is the most common cartridge in the ACTION line and was specifically developed to meet the requirements of the German Technical Guideline for reduced pollutant ammunition.

All ACTION-bullets are drilled individually from solid material. Metal alloy, heat treatment and the specific hollow-point geometry define the desired effect in the target. The enclosed HP ensures perfect weapon's feed and avoids deterioration of the deformation caused by foreign material such as clothing. Additionally, the ACTION 4 has minimal deflection when shooting through angled glass, has good penetration on hard targets and is able to deflate a tire within a few seconds.

Upon impact with the target, the plastic tip of the ACTION 4 is pushed into the hollow-point and becomes a part of the deformation process. A medical contrast agent in the bullet tip ensures that, should it be torn out, it can be seen in an X-ray.

Cartridge	**9x19 / 9mm Luger**
projectile	SHP, 6.1 g / 94 gr
projectile material	CuZn - alloy, plastic tip
primer / propellant	SINTOX®-FORENSIS - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	10.1 g

Performance		
term of reference	TR	
temperature range	-30°C to +52°C	
mean chamber pressure	max. 2 700 bar	(21°C)
muzzle velocity / energy	420 m/s (1 378 fps) / 540 J	100 mm barrel
accuracy at 25 m	$s_a \leq 25$ mm, 30 rounds	
penetration in 20% gelatine	≤ 30 cm	
energy deposition	max. 60 J/cm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 ACTION 5 SXF

6.1 g / 94 gr

Redesigned target effect for enhanced stopping power

Lead-free deformation round

Designed for perfect weapon's feed

Custom marking agent facilitates forensic analysis

SINTOX FORENSIC non toxic

LEAD FREE

Application

ACTION 5 is the ACTION line deformation cartridge with the highest stopping power, particulary designed for special forces such as the GSG 9.

All ACTION-bullets are drilled individually from solid material. Metal alloy, heat treatment and the specific hollow-point geometry define the desired effect in the target. The enclosed HP ensures perfect weapon's feed and avoids deterioration of the deformation caused by foreign material such as clothing.

Upon impact with the target, the plastic tip of the ACTION 5 is pushed into the hollow-point and becomes a part of the deformation process. A medical contrast agent in the bullet tip ensures that, should it be torn out, it can be seen in an X-ray.

Cartridge	**9x19 / 9mm Luger**
projectile	SHP, 6.1 g / 94 gr
projectile material	CuZn - alloy, plastic tip
primer / propellant	SINTOX®-FORENSIS - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	10.6 g

Performance		
temperature range	-30°C to +52°C	
mean case mouth pressure	max. 2 300 bar	(21°C)
muzzle velocity	425 m/s (1 394 fps)	100 mm barrel
muzzle energy	550 J	
accuracy at 50 m	$s_a \leq 25$ mm, 30 rounds	
penetration in 20% gelatine	≤ 20 cm	
energy deposition	max. 75 J/cm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 HP SX
8.0 g / 124 gr

Cost effective CIP-approved deformation round

Provides maximum stopping power

Custom marking agent facilitates forensic analysis

SINTOX
non toxic

Application

The HP cartridge is a deformation cartridge with a classic hollow-point bullet design for defined penetration depth and energy transfer and minimal loss of mass.

Reducing the shooters exposure to pollutants is an essential concern for RUAG Ammotec. Due to the heavy metal-free SINTOX® primer and the covered bullet base, no pollutants are released near the shooter. This is not only important when shooting indoors, but also outdoors where shooters may face head- or crosswinds.

All components perform seamlessly together for perfect functioning in all common types of pistol.

Cartridge	**9x19 / 9mm Luger**
projectile	JHP, 8.0 g / 124 gr
projectile material	CuZn - alloy, plated jacket; PbSb-alloy core
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	12.5 g

Performance		
term of reference	C.I.P.	
temperature range	-30°C to +52°C	
mean chamber pressure	max. 2 350 bar	(21°C)
muzzle velocity / energy	365 m/s (1 198 fps) / 530 J	150 mm barrel
accuracy at 50 m	100% radius ≤ 100 mm	
penetration in 20% gelatine	≤ 30 cm	
energy deposition	max. 60 J/cm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 AP SX
7.0 g / 108 gr

Provides outstanding penetration on hard targets

Lead-free bullet and primer reduce pollution

Excellent performance in submachine guns

SINTOX non toxic

LEAD FREE

Application

The AP SX is a 9x19 round with high penetration power and good accuracy.

Reducing the shooters exposure to pollutants is an essential concern for RUAG Ammotec. Due to the heavy metal-free SINTOX® primer and the totally encapsulated bullet core, no pollutants are released near the shooter. This is not only important when shooting indoors, but also outdoors where shooters may face head- or crosswinds.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol.

Cartridge	**9x19/9mm Luger**
projectile	solid, 7.0 g / 108 gr
projectile material	CuZn - alloy, tin-plated
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	11.2 g

Performance		
temperature range	-20°C to +52°C	
mean case mouth pressure	max. 2 600 bar	(21°C)
muzzle velocity	420 m/s (1 378 fps)	200 mm barrel
muzzle energy	615 J	
accuracy at 25 m	H ; V ≤ 200 mm, 10 rounds	
penetration at 15 m	8 sheet steel plates (1 mm, separated by 20 mm)	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 Tracer
7.6 g / 118 gr

Red trace mixture illuminates the flight path
Reliable in extreme environmental conditions
Excellent performance in submachine guns

Application

The Tracer round leaves a red trace to a range of 100 meters and is suitable for marking targets or as an indicator when the magazine is nearly empty and should be changed.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol.

Cartridge	**9x19/9mm Luger**
projectile	tracer, 7.6 g / 118 gr
projectile material	tombac-plated steel-jacket, lead core and trace mixture
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	11.6 g

Performance		
temperature range	-20°C to +30°C	
mean case mouth pressure	max. 2 600 bar	(21°C)
muzzle velocity	420 m/s (1 378 fps)	200 mm barrel
muzzle energy	670 J	
accuracy at 25 m	$S_a \leq 250$ mm, 10 rounds	
min. trace distance	100 m	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 Subsonic FMJ

10.0 g / 154 gr

Provides a minimal accoustic profile to maintain the element of surprise

Heavy bullet yields excellent target effect

Blue marked primer ensures proper selection

Reliable in extreme environmental conditions

Application

The Subsonic FMJ is designed for silenced shooting.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol.

Cartridge	**9x19/9mm Luger**
projectile	FMJ, 10.0 g / 154 gr
projectile material	copper-nickel-coated steel jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	14.3 g

Performance		
temperature range	-30°C to +52°C	
mean chamber pressure	max. 2 350 bar	(21°C)
muzzle velocity	315 m/s (1 033 fps)	200 mm barrel
muzzle energy	495 J	
accuracy at 50 m	H ; V ≤ 250 mm, 10 rounds	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x19 Subsonic HP SX

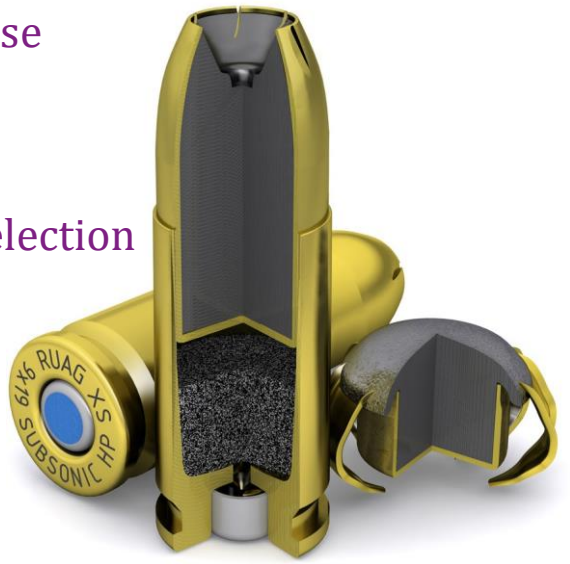
9.5 g / 147 gr

Deformation round with a minimal accoustic profile to maintain the element of surprise

Provides the maximum possible stopping power

Blue marked primer ensures proper selection

Reliable in extreme environmental conditions



SINTOX non toxic

Application

The Subsonic HP cartridge is a silenced deformation cartridge with a classic hollow-point bullet design for defined penetration depth, energy transfer and minimal loss of mass.

The reduction of the shooters exposure to pollutants is an essential concern for RUAG Ammotec. Due to the heavy metal-free SINTOX® primer and the covered bullet base, no pollutants are released near the shooter. This is not only important when shooting indoors, but also outdoors where shooters may face head- or crosswinds.

Cartridge	**9x19 / 9mm Luger**	
projectile	JHP, 9.5 g / 147 gr	
projectile material	CuZn - alloy jacket, lead core	
primer / propellant	SINTOX® - non toxic / double base powder	
case material	CuZn - alloy	
cartridge weight	13.8 g	

Performance		
temperature range	-30°C to +52°C	
mean chamber pressure	max. 2 600 bar	(21°C)
muzzle velocity	314 m/s (1 030 fps)	100 mm barrel
muzzle energy	468 J	
accuracy at 25 m	100% radius ≤ 70 mm	
penetration in 20% gelatine	≤ 35 cm	
energy deposition	max. 40 J/cm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

Technical specification and numerical data are given as an indication only and are of no contractual nature.
05.2012

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Tel. +41 332 282 879 | Fax +41 332 282 644 | sales.ammotec@ruag.com | www.ruag.com

9x19 Frangible SX
6.4 g / 98 gr

Perfect round for tactical CQB training

Ideal fragmentation size minimises ricochet and inhalation risk

Lead-free bullet and primer reduce pollution

SINTOX non toxic

LEAD FREE

Application

The Frangible SX is specially developed for the dynamic training needs of police, military and security staff.

The bullet is made from copper and polymer by injection moulding, is completely lead-free and fully recyclable.

The Frangible SX is particularly suitable for tactical CQB/MOUT training, as the teams can train safely and effectively with maximum realism. The shooting distance can be reduced without risking being hit by backsplashes or ricochets.

All components perform seamlessly together for perfect functioning in all common types of pistol.

Cartridge	**9x19 / 9mm Luger**
projectile	frangible, 6.4 g / 98 gr
projectile material	sintered Cu
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	10.8 g

Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 2 850 bar	(21°C)
muzzle velocity	430 m/s (1 410 fps)	200 mm barrel
muzzle energy	590 J	
accuracy at 25 m	100% radius ≤ 100 mm	
ideal range	0.1 - 50 m	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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02.2013

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9x19 Plastic Blank

Cost effective manoeuvre round

Seamlessly integrates with combat simulation training

Application

The Plastic Blank cartridge is non-lethal, has been developed for force on force training and guarantees a safe combat simulation. The Plastic Blank works perfect even under extreme weather conditions and temperature fluctuations.

When used with a blank firing attachment, the weapon will automatically reload.

Cartridge	**9x19 / 9mm Luger**
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy case with plastic insert
cartridge weight	4.7 g

Performance	
temperature range	-20°C to +40°C

Packaging	50 rds/cardboard box, 2 500 rds/cardboard box

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Additional
Short-Range Ammunition

Together
ahead. RUAG

7.65mm Browning FMJ
4.6 g / 71 gr

Perfect function in all popular pistol-types

Cost effective CIP-approved versatile round

Preserves the weapon's service life

Application

The FMJ round is an excellent value for a training and service round with high reliability and good accuracy.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol

Cartridge	**7.65mm Browning / 7.65mm ACP / .32 Auto**
projectile	FMJ, 4.6 g / 71 gr
projectile material	Cu-coated tombac jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	XX.X g

Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 1 600 bar	(21°C)
muzzle velocity	310 m/s (1 017 fps)	150 mm barrel
muzzle energy	221 J	
accuracy at 15 m	100% radius ≤ 25 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9mm Browning Short FMJ
6.2 g / 95 gr

Reduced recoil for faster target reacquisition

Preserves the weapon's service life

Trusted by Law Enforcement & Armed Forces worldwide

Application

The FMJ round is an excellent value for a training and service round with high reliability and good accuracy.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol

Cartridge	**9x17 / 9mm Browning Short / .380 Auto**
projectile	FMJ, 6.2 g / 95 gr
projectile material	Cu-coated tombac jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	XX.X g

Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 1 350 bar	(21°C)
muzzle velocity	305 m/s (1 000 fps)	150 mm barrel
muzzle energy	288 J	
accuracy at 25 m	100% radius ≤ 45 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

Technical specification and numerical data are given as an indication only and are of no contractual nature.
03.2012

9mm Makarov FMJ
6.0 g / 92 gr

Cost effective versatile round designed for pistols and submachine guns

Preserves the weapon's service life

Reliable in extreme environmental conditions

Application

The FMJ round is an excellent value for a training and service round with high reliability and good accuracy.

Special attention was given to ensuring the cartridge's reliability and accuracy in a wide range of environmental conditions.

Cartridge	**9mm Makarov / 9x18 Makarov**
projectile	FMJ, 6.0 g / 92 gr
projectile material	Cu-coated tombac jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	XX.X g

Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 1 600 bar	(21°C)
muzzle velocity	310 m/s (1 017 fps)	150 mm barrel
muzzle energy	288 J	
accuracy at 25 m	50% radius ≤ 32 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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9x21 FMJ
8.0 g / 124 gr

Reliable non-corrosive SINOXID-primer

Preserves the weapon's service life

Trusted by Law Enforcement & Armed Forces worldwide

Application

The FMJ round is an excellent value for a training and service round with high reliability and good accuracy.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol

Cartridge	**9x21 / 9mm IMI**
projectile	FMJ, 8.0 g / 124 gr
projectile material	Cu-coated tombac jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	XX.X g

Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 2 350 bar	(21°C)
muzzle velocity	360 m/s (1 181 fps)	150 mm barrel
muzzle energy	517 J	
accuracy at 25 m	100% radius ≤ 40 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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.40 S&W FMJFP
11.7 g / 180 gr

Reliable non-corrosive SINOXID-primer

FMJFP-projectile for enhanced stopping power

Trusted by Law Enforcement & Armed Forces worldwide

Application

The FMJ round is an excellent value for a training and service round with high reliability and good accuracy.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol

Cartridge	**.40 S&W / .40 Auto**
projectile	FMJFP, 11.7 g / 180 gr
projectile material	Cu-coated tombac jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	XX.X g

Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 2 250 bar	(21°C)
muzzle velocity	310 m/s (1 017 fps)	150 mm barrel
muzzle energy	562 J	
accuracy at 25 m	100% radius ≤ 30 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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.45 ACP FMJ
14.9 g / 230 gr

Cost effective CIP-approved versatile round

Preserves the weapon's servicelife

Reliable cartridge design combines accuracy and stopping power

Application

The FMJ round is an excellent value for a training and service round with high reliability and good accuracy.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol

Cartridge	**.45 ACP / .45 Auto**
projectile	FMJ, 14.9 g / 230 gr
projectile material	Cu-coated tombac jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	XX.X g

Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 1 300 bar	(21°C)
muzzle velocity	260 m/s (853 fps) 150 mm barrel	
muzzle energy	504 J	
accuracy at 25 m	100% radius ≤ 40 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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.38 Special FMJFP
10.2 g / 158 gr

Excellent value for training and service round.

Flat Front enables a clean hole through the paper target

Reliable non-corrosive SINOXID-primer

Application

The FMJ round is an excellent value for a training and service round with high reliability and good accuracy.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol

Cartridge	**.38 Special / 9x29 R**
projectile	FMJFP, 10.2 g / 158 gr
projectile material	Cu-coated tombac jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	XX.X g

Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 1 500 bar	(21°C)
muzzle velocity	270 m/s (886 fps)	150 mm barrel
muzzle energy	372 J	
accuracy at 25 m	100% radius ≤ 25 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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03.2012

.357 Magnum FMJFP
10.2 g / 158 gr

Cost effective CIP-approved versatile round

Preserves the weapon's servicelife

Trusted by Law Enforcement & Armed Forces worldwide

Application

The FMJ round is an excellent value for a training and service round with high reliability and good accuracy.

All components are produced in-house and perform seamlessly together for perfect functioning in all common types of pistol

Cartridge	**.357 Magnum / 9x33 R**
projectile	FMJFP, 10.2 g / 158 gr
projectile material	Cu-coated tombac jacket, lead core
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	XX.X g

Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 3 200 bar	(21°C)
muzzle velocity	370 m/s (1 214 fps)	150 mm barrel
muzzle energy	698 J	
accuracy at 25 m	100% radius ≤ 30 mm	

Packaging	50 rds/cardboard box, 1 000 rds/cardboard box

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12/70 Magnum ENTRYI
32.5 g / 502 gr

Allows for rapid door breach to a point-blank range

Maintains the element of surprise

Minimises the risk of collateral damage

Application

The ENTRY I is a special round designed to destroy door locks and hinges at close range.

The pressed zinc powder projectile completely disintegrates upon impact and transfers its high kinetic energy on the target. There are no ricochets or backsplashes.

Fast energy transfer in soft targets provides excellent stopping power.

Cartridge	**12/70 Magnum / 12-Gauge - 2 3/4" Magnum**
projectile	PZP, 32.5 g / 502 gr
projectile material	pressed zinc powder
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy; plastic
cartridge weight	45.0 g

Performance		
term of reference	C.I.P.	
temperature range	-10°C to +52°C	
mean chamber pressure	max. 1 050 bar (Magnum)	(21°C)
penetration	1.5 mm sheet steel (St37) up to 2 m	
	3 mm sheet steel (St37) up to 2 cm	
	100 mm wood (fir in 5 layers) up to 2 cm	

Packaging	25 rds/cardboard box, 250 rds/cardboard box

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12/70 Magnum ENTRY II
27.0 g / 417 gr

Allows for rapid door breach from up to 30 m

Maintains the element of surprise

Minimises the risk of collateral damage

Application

The Entry II is a special round designed to destroy door locks and hinges, against booby traps and for EOD missions.

The shooter can engage the target from a safe distance.

The pressed zinc powder slug disintegrates upon impact and transfers its high kinetic energy on the target.

Cartridge	**12/70 Magnum / 12-Gauge - 2$^{3/4}$" Magnum**
projectile	PZPS, 27 g / 417 gr
projectile material	pressed zinc powder slug
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy; plastic
cartridge weight	38.0 g

Performance	
term of reference	C.I.P.
temperature range	-10°C to +52°C
mean chamber pressure	max. 1 050 bar (Magnum) (21°C)
penetration	1.5 mm sheet steel (St37) up to 30 m
	3 mm sheet steel (St37) up to 2 cm

Packaging	25 rds/cardboard box, 250 rds/cardboard box

Technical specification and numerical data are given as an indication only and are of no contractual nature.
03.2012

Personal Defence Weapon Ammunition

Together ahead. RUAG

4.6x30 FMJ SX
2.6 g / 40 gr

High energy round for an enhanced operating range

High effectiveness in the target

Small cartridge weight allows for higher combat loads

SINTOX
non toxic

Application

The personal defence weapon system in the calibre 4.6x30 is perfect for use in both protection and close combat because it offers high firepower, is compact and is used in light weight weapon.

This is ideal for Armed Forces, Law Enforcement, Special Forces and Personal Protection.

The FMJ-cartridge is a perfect basic round for military purposes and for the personal defence of combat support troops.

Compared to a handgun it provides exceptional accuracy over a greater range.

High stopping power and good penetration make it an excellent multi-purpose round.

Cartridge	**4.6x30**
projectile	FMJ, 2.6 g / 40 gr
projectile material	CuZn - alloy plated steel jacket; PbSb-alloy core
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	7.0 g

Performance		
term of reference	C.I.P., DM21	
temperature range	-54°C to +52°C	
mean chamber pressure	max. 4 000 bar	(21°C)
muzzle velocity / energy	620 m/s (2 034 fps) / 500 J	
accuracy at 100 m	$s_a \leq 30$ mm	
penetration in 20% gelatine	≤ 30 cm at 25 m	
energy deposition	max. 33 J / cm	

Packaging	40 rds/cardboard box, 1 920 rds/M2A1 box

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4.6x30 ACTION SX
2.0 g / 31 gr

Excellent stopping power minimises the risk of collateral damage

Monolith design increases penetration in combined targets

Sealed and waterproofed for reliability in extreme missions

Lead-free bullet and primer reduce pollution

SINTOX non toxic

LEAD FREE

Application

The personal defence weapon system in the calibre 4.6x30 is perfect for use in both protection and close combat because it offers high firepower, is compact and is used in light weight weapon.

This is ideal for Armed Forces, Law Enforcement, Special Forces and Personal Protection.

The ACTION cartridge is designed for closed quarters deployment, where immediate energy transfer is essential.

It provides high stopping power against soft targets with a maximum penetration depth of 30 cm. This avoids full penetration and collateral damage.

The ACTION cartridge produces good performance on both hard and combined targets.

Cartridge	**4.6x30**
projectile	SHP, 2.0 g / 31 gr
projectile material	CuZn - alloy
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	6.5 g

Performance		
term of reference	C.I.P.	
temperature range	-30°C to +52°C	
mean chamber pressure	max. 4 000 bar	(21°C)
muzzle velocity / energy	690 m/s (2 264 fps) / 475 J	
accuracy at 25 m	$s_a \leq 35$ mm	
penetration in 20% gelatine	≤ 30 cm at 25 m	
energy deposition	max. 45 J / cm	

Packaging	40 rds/cardboard box, 1 920 rds/M2A1 box

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4.6x30 AP SX
2.0 g / 31 gr

Excellent penetration of body armour (penetrates NATO CRISAT target up to 200 m)

High effectiveness in soft targets

Sealed and waterproofed for reliability in extreme missions

Lead-free bullet and primer reduce pollution

SINTOX non toxic

LEAD FREE

Application

The personal defence weapon system in the calibre 4.6x30 is perfect for use in both protection and close combat because it offers high firepower, is compact and is used in light weight weapon.

This is ideal for Armed Forces, Law Enforcement, Special Forces and Personal Protection.

The AP cartridge provides the highest penetration power in the 4.6x30 personal defence weapon family and enables the shooter to protect himself successfully against armoured targets even at a greater distance.

Due to the excellent energy transfer on soft targets it also provides enough stopping power for close range targets.

Cartridge	**4.6x30**
projectile	solid, 2.0 g / 31 gr
projectile material	Cu plated steel
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	6.5 g

Performance		
term of reference	C.I.P., DM31	
temperature range	-54°C to +52°C	
mean chamber pressure	max. 4 000 bar	(21°C)
muzzle velocity / energy	680 m/s (2 231 fps) / 465 J	
accuracy at 100 m	$s_a \leq 35$ mm	
penetration at 200 m	CRISAT target (1.6mm titan plate + 20 layers of Kevlar)	
energy deposition	max. 40 J / cm	

Packaging	40 rds/cardboard box, 1 920 rds/M2A1 box

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4.6x30 Training SX

1.7 g / 26 gr

Perfect round for tactical CQB training

Reduced risk of ricochet and target friendly on shooting range structures

Lead-free bullet and primer reduce polluti

SINTOX non toxic

LEAD FREE

Application

The personal defence weapon system in the calibre 4.6x30 is perfect for use in both protection and close combat because it offers high firepower, is compact and is used in light weight weapon.

This is ideal for Armed Forces, Law Enforcement, Special Forces and Personal Protection.

The Training cartridge is designed for training and for use as duty ammunition in sensitive areas such as ships or prisons to minimise collateral damage. In training it is friendly to the backstop and has a reduced tendency to ricochet.

Cartridge	**4.6x30**	
projectile	JSC, 1.7 g / 26 gr	
projectile material	CuZn-alloy jacket; Sn-alloy core	
primer / propellant	SINTOX® - non toxic / double base powder	
case material	CuZn - alloy	
cartridge weight	6.2 g	

Performance		
term of reference	C.I.P.	
temperature range	-30°C to +52°C	
mean chamber pressure	max. 4 000 bar	(21°C)
muzzle velocity / energy	660 m/s (2 165 fps) / 370 J	
accuracy at 50 m	$s_a \leq 35$ mm	
ideal range	≤ 50 m	

Packaging	40 rds/cardboard box, 1 920 rds/M2A1 box

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4.6x30 Frangible SJSX

1.7 g / 26 gr

Perfect round for tactical CQB training

Ideal fragmentation size minimises ricochet and inhalation risk

Lead-free bullet and primer reduce pollut

SINTOX non toxic

LEAD FREE

Application

The personal defence weapon system in the calibre 4.6x30 is perfect for use in both protection and close combat because it offers high firepower, is compact and is used in light weight weapon.

The Frangible SX is specially developed for the training and service needs of police, military and security staff.

The bullet is made from sintered copper, is completely lead-free and fully recyclable.

The Frangible SX is particularly suitable for tactical CQB/MOUT training, as the teams can train safely and effectively with maximum realism. The shooting distance can be reduced without the risk of being hit by backsplashes or ricochets.

Cartridge	**4.6x30**
projectile	semi-jacketed frangible, 1.7 g / 26 gr
projectile material	sintered Cu in tombac jacket
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	6.3 g

Performance		
term of reference	C.I.P.	
temperature range	-30°C to +52°C	
mean chamber pressure	max. 4 000 bar	(21°C)
muzzle velocity / energy	700 m/s (2 297 fps) / 365 J	
accuracy at 25 m	$s_a \leq 35$ mm	
ideal range	1 - 50 m	

Packaging	40 rds/cardboard box, 1 920 rds/M2A1 box

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4.6x30 Blank SX

Unique solution for highly effective live combat simulation training

Designed for perfect weapon's feed

RUAG is the only worldwide supplier

SINTOX non toxic

LEAD FREE

Application

The personal defence weapon system in the calibre 4.6x30 is perfect for use in both protection and close combat because it offers high firepower, is compact and is used in light weight weapon.

This is ideal for Armed Forces, Law Enforcement, Special Forces and Personal Protection.

The Blank cartridge allows realistic but risk-free combat simulation with the service weapon and the blank firing attachment.

Cartridge	**4.6x30**	
primer / propellant	SINTOX® - non toxic / single base powder	
case material	CuZn - alloy	
cartridge weight	4.5 g	

Performance		
term of reference	C.I.P., DM18	
temperature range	-20°C to +40°C	
mean chamber pressure + 3s	max. 4 000 bar	(21°C)

Packaging	40 rds/cardboard box, 1 920 rds/M2A1 box

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Ammunition for Armed Forces

Together ahead. RUAG

5.56x45 FMJ (M193)
3.6 g / 55 gr

Cost effective versatile round with best-in-class accuracy

Optimal solution for long twist barrels

Highest penetration performance for operations in urban terrain (< 50 m)

Application

The FMJ (M193) is specifically designed to NATO-standards and produces the perfect tool for Armed Forces.

It provides a high level of accuracy and undisputed reliability, wherever the mission may take place. Due to minimal barrel wear and smoke residue build up the service life of the weapon is enhanced.

The FMJ (M193) is also available linked according to the customer's requirements.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	FMJ, 3.6 g / 55 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient C1	0.280 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	11.6 g	
Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	990 m/s (3 248 fps)	510 mm barrel
muzzle energy	1 764 J	
accuracy at 300 m	s_H ; $s_V \leq 85$ mm	
penetration at 300 m	5 mm steel plate, St 37, 60°	
Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1	

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5.56x45 FMJ HA

4.1 g / 63 gr

Match grade accuracy

Enhanced penetration due to tombac plated steel jacketed bullet

Preserves the weapon's service life

Application

The FMJ HA (High Accuracy) round is a selected version of the GP90, which is in service with the Swiss Army for many years. This round is known as one of the most accurate and reliable infantry rounds on the market and is also used by sports shooters.

The tombac plated steel jacket provides enhanced penetration which allows the piercing of a steel helmet even at 300 m. The lead core is totally encapsulated to minimise lead contamination.

The FMJ HA is also available linked with a Tracer in mixed ratios according to the customer's requirements.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	FMJ, 4.1 g / 63 gr	
projectile material	tot. encapsulating CuZn plated steel jacket, lead core	
ballistic coefficient C1	0.345 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	12.2 g	
Performance		
term of reference	Swiss Army	
temperature range	-30°C to +60°C	
mean chamber pressure + 3s	max. 4 200 bar	(21°C)
muzzle velocity	910 m/s (2 985 fps)	500 mm barrel
muzzle energy	1 700 J	
accuracy at 300 m	s_H ; $s_V \leq 60$ mm	

Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1

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05.2012

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Tel. +41 332 282 879 | Fax +41 332 282 644 | sales.ammotec@ruag.com | www.ruag.com

5.56x45 HC (SS109)
4.0 g / 62 gr

Cost effective NATO-approved versatile round

Best-in-class accuracy which significantly outperforms NATO-standards

The first SS109 round fully compliant with climate zone A1 requirements

Application

The HC (SS109 / M855) is specifically designed to NATO-standards and produces the perfect tool for Armed Forces that need enhanced performance on hard targets.

It provides a high accuracy and excellent reliability, wherever the mission may take place.

The HC (SS109) round is also available linked in mixed ratios according to the customer's requirements.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	HC, 4.0 g / 62 gr	
projectile material	tombac jacket, hardened steel and lead cores	
ballistic coefficient C1	0.310 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	12.2 g	
Performance		
term of reference	MCMOPI, NATO qualified	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	945 m/s (3 100 fps)	510 mm barrel
muzzle energy	1 785 J	
accuracy at 300 m	s_H ; $s_V \leq 85$ mm	
penetration at 570 m	3.5 mm steel plate, Rockwell B55-70	
Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1	

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5.56x45 AP TC
4.1 g / 63 gr

Most accurate AP round

Outstanding penetration power on armoured targets

Fully compliant with climate zone A1 requirements

Application

The AP TC is specifically designed to NATO-standards and produces the perfect tool for Armed Forces that need excellent penetration over a longer range.

The tungsten carbide core is much harder and more ductile than most targets which makes it unstoppable for light armour. Because the core does not break apart during penetration, it transfers outstanding residual energy to the target.

Using only high quality raw materials and producing within tight tolerances ensures outstanding accuracy.

The AP TC round is also available linked in mixed ratios according to the customer's requirements.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	AP, 4.1 g / 63 gr	
projectile material	tombac jacket, tungsten carbide & lead cores	
ballistic coefficient C1	0.342 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	12.2 g	
Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	945 m/s (3 100 fps)	510 mm barrel
muzzle energy	1 830 J	
accuracy at 300 m	s_H ; $s_V \leq 65$ mm	
Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1	

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5.56x45 LF HC SX
4.0 g / 62 gr

Lead-free NATO-approved versatile round (SS109/M855 type)

Best-in-class accuracy which significantly outperforms NATO-standards

Fully compliant with climate zone A1 requirements

Reduced wear and strain on the barrel maintains accuracy over the weapon's life

SINTOX non toxic

LEAD FREE

Cartridge & Link

Application

The totally lead-free LF HC SX is specifically designed to NATO-standards and produces the perfect tool for Armed Forces that need excellent penetration over a longer range.

The projectile construction is based on the well known and combat proven SS109 round. The hardened steel core provides a maximum of penetration power. The second core, consisting of tombac, provides additional performance and the jacket minimised the barrel wear.

The LF HC SX round is also available linked in mixed ratios according to the customer's requirements.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	HC, 4.0 g / 62 gr	
projectile material	tombac-jacket, hardened steel and tombac cores	
ballistic coefficient C1	0.310 (ICAO)	
primer / propellant	SINTOX® - non toxic / double base powder	
case material	CuZn - alloy	
cartridge weight	12.1 g	
Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	945 m/s (3 100 fps)	510 mm barrel
muzzle energy	1 786 J	
accuracy at 300 m	s_H; $s_V \leq 85$ mm	

Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1

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5.56x45 LF HC+SX
4.0 g / 62 gr

Lead-free versatile round

LMG round for enhanced penetration power on armoured targets (fills the gap to 7.62x51 Ball)

Excellent value for use in LMG

Fully compliant with climate zone A1 requirements

Application

The totally lead-free LF HC+ SX is specifically designed to NATO-standards and produces the perfect tool for Armed Forces that need excellent penetration over a longer range.

The projectile consists of a hardened steel core, which makes two-thirds of the bullet weight. This design guarantees excellent penetration on hard targets. The brass-shoe provides optimal spin, minimal barrel wear and allows outstanding accuracy. A high performance powder ensures an extra long shelf life under extreme conditions.

The LF HC+ SX round is also available linked in mixed ratios according to the customer's requirements.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	JHC, 4.0 g / 62 gr	
projectile material	hardened steel core; brass-shoe	
primer / propellant	SINTOX® - non toxic / double base powder	
case material	CuZn - alloy	
cartridge weight	12.2 g	
Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	935 m/s (3 068 fps)	510 mm barrel
muzzle energy	1 730 J	
accuracy at 300 m	$s_a \leq 85$ mm	
penetration at 300 m:	12 mm mild steel plate	
Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1	

Technical specification and numerical data are given as an indication only and are of no contractual nature.
06.2013

5.56x45 Frangible SJSX
3.2 g / 50 gr

Perfect round for tactical CQB training

Ideal fragmentation size minimises ricochet and inhalation risk

Lead-free bullet and primer reduce polluti

SINTOX non toxic

LEAD FREE

Application

The Frangible SX is specially developed for the training and service needs of police, military and security staff.

The bullet is made from sintered copper, is completely lead-free and fully recyclable.

The Frangible SX is particularly suitable for tactical CQB/MOUT training, as the teams are able to train safely and effectively with maximum realism. The shooting distance can be reduced without risking being hit by backsplashes or ricochets.

Cartridge	**5.56x45 / .223 Rem.**
projectile	semi-jacketed frangible, 3.2 g / 50 gr
projectile material	sintered Cu in tombac jacket
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	11.4 g

Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	890 m/s (2 920 fps)	510 mm barrel
muzzle energy	1 267 J	
accuracy at 100 m	$s_a \leq 30$ mm	
ideal range	1 - 100 m	

Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1

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5.56x45 Frangible SJSX
4.0 g / 62 gr

Perfect round for tactical CQB training

Ideal fragmentation size minimises ricochet and inhalation risk

Lead-free bullet and primer reduce polluti

SINTOX non toxic

LEAD FREE

Application

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The Frangible SX is particularly suitable for tactical CQB/MOUT training, as the teams are able to train safely and effectively with maximum realism. The shooting distance can be reduced without risking being hit by backsplashes or ricochets.

Cartridge	**5.56x45 / .223 Rem.**
projectile	semi-jacketed frangible, 4.0 g / 62 gr
projectile material	sintered Cu in tombac jacket
primer / propellant	SINTOX® - non toxic / double base powder
case material	CuZn - alloy
cartridge weight	12.2 g

Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	805 m/s (2 641 fps)	510 mm barrel
muzzle energy	1 296 J	
accuracy at 100 m	$s_a \leq 25$ mm	
ideal range	1 - 100 m	

Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1

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01.2014

5.56x45 Tracer
4.1 g / 63 gr

Red trace mixture illuminates the flight path

Delayed trace ignition conceals the shooter's location

Reliable in extreme environmental conditions

Excellent function in LMGs

Application

The Tracer (M856) is specifically designed to NATO-standards and is suitable for either marking targets or as an indicator when the magazine is nearly empty and should be changed.

The delayed start of the red trace helps to conceale the shooter's position from the enemy. To improve the concealement even further an infrared trace is available that is only visible with night vision devices.

The Tracer is also available linked in mixed ratios according to the customer's requirements.

Cartridge	**5.56x45 / .223 Rem.**
projectile	tracer, 4.1 g / 63 gr
projectile material	tombac-plated steel-jacket, lead core and trace mixture
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	12.2 g

Performance		
term of reference	MCMOPI, NATO qualified	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	905 m/s (2 969 fps)	510 mm barrel
muzzle energy	1 680 J	
accuracy at 300 m	s_H ; s_V ≤ 125 mm	
min. trace distance	600 m	

Packaging	100 rds/linked, 800 rds/M2A1

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5.56x45 Blank

Safe solution for live combat simulation training

Designed for perfect weapon's feed

Optimised for specific weapon and simulation systems

Application

The Blank cartridge is a non-lethal round for force-on-force training and works perfect under extreme environmental conditions and temperature fluctuations.

When used with a blank firing attachment (BFA), the weapon will automatically reload.

The Blank cartridge is also available linked according to the customer's requirements.

Cartridge	**5.56x45 / .223 Rem.**
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	7.5 g

Performance	
temperature range	-20°C to +52°C
noise level	≤ 160 dB (lin peak)

Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1

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7.62x51 FMJ (M80)
9.5 g / 146 gr

Cost effective versatile round with best-in-class accuracy

Optimised case design provides excellent function in machine guns

Application

The FMJ (M80) is specifically designed to NATO standards and produces the perfect tool for Armed Forces that need good penetration over a longer range.

It provides best accuracy in class and undisputed reliability, wherever the mission may take place.

The FMJ (M80) is also available linked in mixed ratios according to the customer's requirements.

Cartridge	**7.62x51 / .308 Win.**	
projectile	FMJ, 9.5 g / 146 gr	
projectile material	tombac-plated steel-jacket, lead core	
ballistic coefficient C1	0.359 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	24.0 g	
Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	855 m/s (2 805 fps)	562 mm barrel
muzzle energy	3 455 J	
accuracy at 550 m	s_H ; $s_V \leq 200$ mm	
penetration at 570 m	3.5 mm steel plate, Rockwell B55-70	
Packaging	10 rds/cardboard box, 400 rds/M2A1	

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7.62x51 HC
9.6 g / 148 gr

Lead-free versatile round

MG round for enhanced penetration power on armoured targets

Extended shelf life due to a non-corrosive coating of the bullet

Reduced wear and strain on the barrel maintains accuracy over the weapon's life

Application

The HC round is specifically designed to NATO standards and produces the perfect tool for Armed Forces that need excellent penetration over a longer range.

The projectile consists of a hardened steel core which makes two-thirds of the bullet weight. This design guarantees excellent penetration on hard targets. The brass-shoe provides optimal spin, minimal barrel wear and allows outstanding accuracy.

The HC round is also available linked in mixed ratios according to the customer's requirements.

Cartridge	**7.62x51 / .308 Win.**	
projectile	JHC, 9.6 g / 148 gr	
projectile material	hardened steel core; brass-shoe; zinc-coated	
ballistic coefficient C1	0.359 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	24.0 g	
Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	845 m/s (2 772 fps)	562 mm barrel
muzzle energy	3 430 J	
accuracy at 300 m	s_H ; $s_V \leq 85$ mm	
Packaging	10 rds/cardboard box, 400 rds/M2A1	

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7.62x51 Tracer (M62)
9.2 g / 141 gr

Red trace mixture illuminates the flight path

Delayed trace ignition conceals the shooter's location

Reliable in extreme environmental conditions

Excellent function in MGs

Application

The Tracer is specifically designed to NATO-standards and is suitable for marking targets or as an indicator when the magazine is nearly empty and should be changed.

The delayed start of the red trace helps to conceale the shooter's position from the enemy.

The Tracer is also available linked in mixed ratios according to the customer's requirements.

Cartridge	**7.62x51 / .308 Win.**	
projectile	tracer, 9.2 g / 141 gr	
projectile material	tombac-plated steel-jacket, lead core and trace mixture	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	24.0 g	

Performance		
term of reference	MCMOPI	
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 450 bar	(21°C)
muzzle velocity	815 m/s (2 674 fps)	562 mm barrel
muzzle energy	3 055 J	
accuracy at 550 m	s_H ; $s_V \leq 300$ mm	
min. trace distance	775 m	

Packaging	250 rds/linked, 500 rds/M2A1

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03.2012

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7.62x39 Blank

Safe solution for live fire combat simulation training

Designed for perfect weapon's feed

Optimised for specific weapon and simulation systems

Application

Its purpose is to imitate the sound effects and muzzle fire of shooting with live ammunition and the function, loading and ejection of automatic weapons during shooting from regular firearms with the standard barrel and a blank firing attachment. (BFA)

Cartridge	**7.62x39 / 7.62 Kalashnikov**
primer / propellant	SINOXID / double base powder
case material	lacquered steel case
cartridge weight	9.1 g

Performance	
temperature range	-20°C to +52°C

Packaging	10 rds/cardboard box, 400 rds/M2A1

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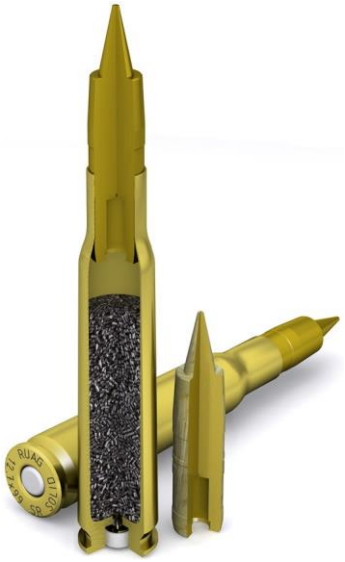
12.7x99 SR SolidSX
45.2 g / 698 gr

For limited training areas (small shooting range, populated surroundings, helicopters)

Identical shooting characteristics ensure realistic short range training

Reduced wear and strain on the barrel maintains accuracy over the weapon's life

Integrates with Short Range Tracer rounds



SINTOX non toxic

LEAD FREE

Application

The short range technology (SR) considerably reduces the effective range, providing great benefits when training in a limited operating area, especially on flat terrain.

12.7x99 rounds have a general operational range of 2 km and require a large safety zone beyond the danger zone.

Due to the poor aerodynamic profile the projectile decelerates faster than a conventional bullet.

The SR Solid round is also available linked in mixed ratios according to the customer's requirements.

Cartridge	**12.7x99 / .50 Browning**	
projectile	Solid, 45.2 g / 698 gr	
projectile material	CuZn - alloy	
primer / propellant	SINTOX / double base powder	
case material	CuZn - alloy	
cartridge weight	118.0 g	

Performance		
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 500 bar	(21°C)
muzzle velocity	880 m/s (2887 fps)	1 143 mm / 45" barrel
muzzle energy	17 501 J	
accuracy at 550 m	$s_a \leq 265$ mm	
ideal range	≤ 800 m	

Packaging	10 rds/cardboard box, 100 rds/M2A1

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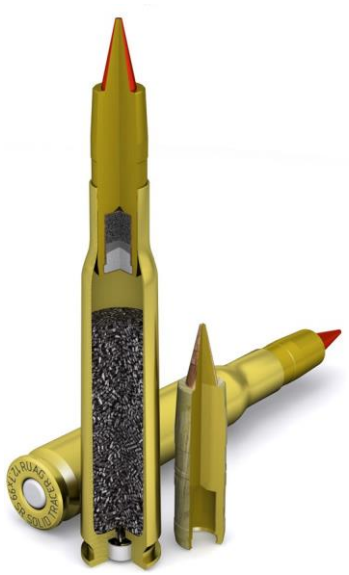
12.7x99 SR Solid Tracer SX
45.8 g / 707 gr

For limited training areas (small shooting range, populated surroundings, helicopters)

Identical shooting characteristics ensure realistic short range training

Reduced wear and strain on the barrel maintains accuracy over the weapon's life

Integrates with Short Range rounds



SINTOX non toxic

LEAD FREE

Application

The short range technology (SR) considerably reduces the effective range, providing great benefits when training in a limited operating area, especially on flat terrain.

12.7x99 rounds have a general operational range of 2 km and require a large safety zone beyond the danger zone.

Due to the poor aerodynamic profile the projectile decelerates faster than a conventional bullet.

The SR Solid Tracer round is also available linked in mixed ratios according to the customer's requirements.

Cartridge	**12.7x99 / .50 Browning**	
projectile	Solid tracer, 45.8 g / 707 gr	
projectile material	CuZn - alloy	
primer / propellant	SINTOX / double base powder	
case material	CuZn - alloy	
cartridge weight	118.6 g	

Performance		
temperature range	-54°C to +52°C	
mean case mouth pressure + 3s	max. 4 500 bar	(21°C)
muzzle velocity	870 m/s (2854 fps)	1 143 mm / 45" barrel
muzzle energy	17 333 J	
accuracy at 550 m	$s_a \leq 355$ mm	
ideal range	≤ 800 m	

Packaging	10 rds/cardboard box, 100 rds/M2A1

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RUAG SWISS P

The Sniper's Choice

RUAG SWISS P

The Sniper's Choice

.223 Rem. SWISS P Ball
4.1 g / 63 gr

Most accurate FMJ round

Enhanced penetration due to tombac plated steel jacketed bullet

Preserves the weapon's service life

Coordinated ballistics with SWISS P Target, Styx Action and Armour Piercing rounds

RUAG SWISS P
The Sniper's Choice

Application

Designed for Army and Police snipers, the SWISS P Ball, provides outstanding accuracy at an enhanced operation range.

The reliable primer and temperature stable powder achieve constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .223 Rem. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	FMJ, 4.1 g / 63 gr	
projectile material	tombac plated steel jacket, lead core	
ballistic coefficient G1	0.3678 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	12.2 g	
Performance		
term of reference	Swiss Army	
mean chamber pressure + 3s	max. 4 200 bar	(21°C)
muzzle velocity	910 m/s (2 985 fps)	500 mm barrel
muzzle energy	1 700 J	
accuracy at 300 m	s_H ; $s_V \leq 60$ mm	
Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1	

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.223 Rem. SWISS P Target
4.5 g / 69 gr

The most accurate .223 Rem. round

Enhanced operating range of up to 600 m

Preserves the weapon's service life

Coordinated ballistics with SWISS P Ball, Styx Action and Armour Piercing rounds

RUAG SWISS P
The Sniper's Choice

Application

This is the perfect round for highly accurate target shooting in both competition and training at an enhanced operation range.

Tight production tolerances combined with small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .223 Rem. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	HPBT, 4.5 g / 69 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.3787 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	12.6 g	
Performance		
term of reference	Swiss Army	
mean chamber pressure	max. 4 300 bar	(21°C)
muzzle velocity	855 m/s (2 804 fps)	500 mm barrel
muzzle energy	1 644 J	
accuracy at 300 m	$S_a \leq 17$ mm	

Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1

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.223 Rem. SWISS P Styx Action

4.5 g / 69 gr

Outstanding stopping power while eliminating the risk of collateral damage

Match grade accuracy

Coordinated ballistics with SWISS P Ball, Target and Armour Piercing rounds

RUAG SWISS P
The Sniper's Choice

Application

The hyper expanding hollow point bullet immediately deposits its energy within a very short distance providing excellent stopping power on soft targets and is also direction stable.

The sophisticated bullet tip provides an absolutely reliable hyper expansion to approximately the double of its original diameter.

Tight production tolerances combined with small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .223 Rem. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	HPBT, 4.5 g / 69 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.3129 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	12.6 g	
Performance		
term of reference	Swiss Army	
mean chamber pressure	max. 4 300 bar	(21°C)
muzzle velocity	855 m/s (2805 fps)	500 mm barrel
muzzle energy	1 645 J	
accuracy at 300 m	s_H ; s_V ≤ 17 mm	
Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1	

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.223 Rem. SWISS P Final SR
3.4 g / 52 gr

Outstanding stopping power

Total bullet disintegration avoids collateral damage

Specifically designed for short range missior

RUAG SWISS P
The Sniper's Choice

Application

The Final SR (Short Range) round has evolved from a highly effective hunting round and was specially designed for short operation distances in urban environments.

The disintegrating hollow point bullet immediately deposits its energy within a very short distance providing excellent stopping power on soft targets.

Tight production tolerances combined with small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	JHP, 3.4 g / 52 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.1816 (ICAO)	
primer / propellant	SINTOX® - non toxic / double base powder	
case material	CuZn - alloy	
cartridge weight	11.7 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 300 bar	(21°C)
muzzle velocity	1 040 m/s (3 412 fps)	600 mm barrel
muzzle energy	1 407 J	
accuracy at 100 m	$S_a \leq 14$ mm	
Packaging	30 rds/clip, 450 rds/M2A1	

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.223 Rem. SWISS P Armour Piercing
4.1 g / 63 gr

The most accurate Armour Piercing round

The tungsten carbide core provides outstanding penetration power

Extended barrel durability due to patented projectile design

Coordinated ballistics with SWISS P Ball, Target, Styx Action and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

The tungsten carbide core is much harder and more ductile than most targets which makes it unstoppable for light armour. Because the core does not break apart during penetration it transfers outstanding residual energy.

Using only high quality raw materials and producing within tight tolerances ensure an identical point of impact from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .223 Rem. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**5.56x45 / .223 Rem.**	
projectile	AP, 4.1 g / 63 gr	
projectile material	tombac jacket, tungsten carbide & lead cores	
ballistic coefficient G1	0.3632 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	12.2 g	
Performance		
term of reference	Swiss Army	
mean chamber pressure	max. 4 300 bar	(21°C)
muzzle velocity	875 m/s (2 870 fps)	500 mm barrel
muzzle energy	1 570 J	
accuracy at 300 m	$S_a \leq 25$ mm	
Packaging	10 rds/clip, 50 rds/cardboard box, 1 000 rds/M2A1	

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.308 Win. SWISS P Ball
11.4 g / 176 gr

Match grade accuracy

Excellent function in bolt-action and semi-automatic weapons

Coordinated ballistics with SWISS P Target, Styx Action, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

Designed for Army and Police snipers, the SWISS P Ball, provides outstanding accuracy over an enhanced operation range.

The reliable primer and temperature stable powder achieve constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .308 Win. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**7.62x51 / .308 Win.**	
projectile	FMJ, 11.4 g / 176 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.5225 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	25.4 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 150 bar	(21°C)
muzzle velocity	790 m/s (2 592 fps)	650 mm barrel
muzzle energy	3 557 J	
accuracy at 300 m	$s_a \leq 32$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.308 Win. SWISS P Target
10.9 g / 168 gr

The most accurate .308 Win. round

Coordinated ballistics with SWISS P Ball, Styx Action, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

This is the perfect round for highly accurate target shooting in competition and training.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .308 Win. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

The .308 Win. SWISS P Target is also available with a 11.3 g / 175 gr bullet.

Cartridge	**7.62x51 / .308 Win.**	
projectile	HPBT, 10.9 g / 168 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.4893 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	24.9 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 150 bar	(21°C)
muzzle velocity	805 m/s (2 641 fps)	650 mm barrel
muzzle energy	3 530 J	
accuracy at 300 m	$s_a \leq 17.5$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.308 Win. SWISS P Target
11.3 g / 175 gr

The most accurate .308 Win. round

Extended supersonic range ensures improved accuracy and greater energy on target

Coordinated ballistics with SWISS P Ball, Styx Action, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

This is the perfect round for highly accurate target shooting in competition and training.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .308 Win. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

The .308 Win. SWISS P Target is also available with a 10.9 g / 168 gr bullet.

Cartridge	**7.62x51 / .308 Win.**	
projectile	HPBT, 11.3 g / 175 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.5474 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	25.3 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 150 bar	(21°C)
muzzle velocity	790 m/s (2 592 fps)	650 mm barrel
muzzle energy	3 540 J	
accuracy at 300 m	$s_a \leq 14.5$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.308 Win. SWISS P Styx Action
10.8 g / 167 gr

Outstanding stopping power while minimising the risk of collateral damage

Match grade accuracy

Coordinated ballistics with SWISS P Ball, Target, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

The hyper expanding hollow point bullet immediately deposits its energy within a very short distance providing excellent stopping power on soft targets and is direction stable.

The sophisticated bullet tip provides an absolutely reliable hyper expansion to approximately the double of its original diameter.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .308 Win. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**7.62x51 / .308 Win.**	
projectile	HPBT, 10.8 g / 167 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.3630 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	24.8 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 150 bar	(21°C)
muzzle velocity	810 m/s (2 657 fps)	650 mm barrel
muzzle energy	3 550 J	
accuracy at 300 m	$s_a \leq 27$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.308 Win. SWISS P Final SR

8.4 g / 130 gr

Outstanding stopping power

Total bullet disintegration avoids collateral damage

Specifically designed for short range missic

RUAG SWISS P
The Sniper's Choice

Application

The Final SR (Short Range) round has evolved from a highly effective hunting round and was specially designed for short operation distances in urban environments.

The disintegrating hollow point bullet immediately deposits its energy within a very short distance providing excellent stopping power on soft targets.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission.

Cartridge	**7.62x51 / .308 Win.**	
projectile	JHP, 8.4 g / 130 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.2397 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	22.4 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 150 bar	(21°C)
muzzle velocity	895 m/s (2 936 fps)	650 mm barrel
muzzle energy	3 360 J	
accuracy at 100 m	$S_a \leq 14$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.308 Win. SWISS P Armour Piercing
12.7 g / 196 gr

The most accurate Armour Piercing round

The tungsten carbide core provides outstanding penetration power

Extended barrel durability due to patented projectile design

Coordinated ballistics with SWISS P Ball, Target, Styx Action and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

The tungsten carbide core is much harder and more ductile than most targets which makes it unstoppable for light armour. Because the core does not break apart during penetration it transfers outstanding residual energy to the target.

Using only high quality raw materials and producing within tight tolerances ensure an identical point of impact from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .308 Win. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**7.62x51 / .308 Win.**	
projectile	AP, 12.7 g / 196 gr	
projectile material	tombac jacket, tungsten carbide and lead cores	
ballistic coefficient G1	0.6517 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	26.7 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 150 bar	(21°C)
muzzle velocity	790 m/s (2 592 fps)	650 mm barrel
muzzle energy	3 965 J	
accuracy at 300 m	$s_a \leq 35$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.308 Win. SWISS P Tactical
10.6 g / 163 gr

Excellent first hit probability of targets behind angled glass

No projectile deflection and fragmentation ensure the safety of bystanders

Coordinated ballistics with SWISS P Ball, Target, Styx Action and Armour Piercing rounds

RUAG SWISS P
The Sniper's Choice

Application

The challenge is to accurately hit targets behind an angled window or wind shield without the risk of unpredictable bullet deflection. This could endanger bystanders, especially if the shooting line is not perpendicular to the window.

Conventional bullets break apart or fragment when penetrating glass which makes accurate shooting impossible. At least 90% of the residual body of the SWISS P Tactical bullet stays intact and it does not fragment at all.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

All .308 Win. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**7.62x51 / .308 Win.**	
projectile	SFNBT, 10.6 g / 163 gr	
projectile material	CuZn - alloy	
ballistic coefficient G1	0.3032 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	24.6 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 150 bar	(21°C)
muzzle velocity	820 m/s (2 690 fps)	650 mm barrel
muzzle energy	3 564 J	
accuracy at 300 m	$S_a \leq 18$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.308 Win. SWISS P Subsonic
13.0 g / 200 gr

Provides a minimal accoustic profile to maintain the element of surprise

Physical and ballistic characteristics ensure subsonic flight in all environmental conditions

Best first hit probability due to a special loading technique

Blue marked primer ensures proper selecti

RUAG SWISS P
The Sniper's Choice

Application

Specially designed for subsonic shooting this round is a highly reliable solution that ensures good results even from supersonic weapon systems. This makes it a useful addition to the rest of the SWISS P product line.

The highly precise loading technique allows a cartridge load very close to the sound barrier, but without risking a supersonic bang. Even at subsonic speed the heavy subsonic bullet provides enough energy to achieve a good terminal target effect.

The .308 Win. SWISS P Subsonic is also available with a 15.6 g / 240 gr bullet.

Cartridge	**7.62x51 / .308 Win.**	
projectile	HPBT, 13.0 g / 200 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.3636 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	27.0 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 1 600 bar	(21°C)
muzzle velocity	315 m/s (1033 fps)	450 mm barrel
muzzle energy	645 J	
accuracy at 100 m	100% radius ≤ 76 mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.308 Win. SWISS P Subsonic
15.6 g / 240 gr

Enhanced projectile weight provides greater energy on target

Physical and ballistic characteristics ensure subsonic flight in all environmental conditions

Best first hit probability due to a special loading technique

Blue marked primer ensures proper selecti

RUAG SWISS P
The Sniper's Choice

Application

The extra heavy subsonic bullet provides additional energy to achieve an enhanced target effect, compared to the standard 13.0 g / 200 gr SWISS P Subsonic bullet.

The highly precise loading technique allows a cartridge load very close to the sound barrier, but without risking a supersonic bang. Even at subsonic speed, the heavy subsonic bullet provides enough energy to achieve a good terminal target effect.

Cartridge	**7.62x51 / .308 Win.**	
projectile	HPBT, 15.6 g / 240 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.4646 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	27.0 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 2 500 bar	(21°C)
muzzle velocity	315 m/s (1033 fps)	450 mm barrel
muzzle energy	770 J	
accuracy at 100 m	$S_a \leq 14$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.308 Win. SWISS P Subsonic Final
13.0 g / 200 gr

Outstanding stopping power avoids collateral damage due to total bullet disintegration

Provides a minimal accoustic profile to maintain the element of surprise

Best first hit probability due to a special loading technique

Blue marked primer ensures proper selecti

RUAG SWISS P
The Sniper's Choice

Application

The unique bullet made from pressed pellets instantaneously disintegrates when hitting a soft target even at subsonic speed.

The penetration depth of the fragments is extremely small, minimising the risk of over penetration and increasing the safety of bystanders. This makes it the perfect round for missions in urban terrain.

The heavy subsonic bullet provides enough energy to achieve a good terminal target effect.

Optimised for use in suppressed weapons. The muzzle bang is minimised and the supersonic bang is eliminated.

Cartridge	**7.62x51 / .308 Win.**	
projectile	JPP, 13.0 g / 200 gr	
projectile material	tin plated tombac jacket, pressed lead pellets	
ballistic coefficient G1	0.1587 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	27.0 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 3 600 bar	(21°C)
muzzle velocity	310 m/s (1 017 fps)	450 mm barrel
muzzle energy	625 J	
accuracy at 50 m	$S_a \leq 17$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.300 Whisper SWISS P Target
14.3 g / 220 gr

Provides a minimal accoustic profile to maintain the element of surprise

Physical and ballistic characteristics ensure subsonic flight in all environmental conditions

Best first hit probability due to an optimised powder chamber

RUAG SWISS P
The Sniper's Choice

Application

The calibre .300 Whisper was specifically designed for subsonic shooting in urban terrain. The proportion of the chamber size and the amount of powder are optimised to ensure constant pressure build up and first hit probability.

The highly precise loading technique allows a cartridge load very close to the sound barrier, but without risking a supersonic bang. Even at subsonic speed the heavy subsonic bullet provides enough energy to achieve a good terminal target effect.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

Cartridge	**.300 Whisper**	
projectile	HPBT, 14.3 g / 220 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.4166 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	22.3 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 3 500 bar	(21°C)
muzzle velocity	315 m/s (1033 fps)	450 mm barrel
muzzle energy	709 J	
accuracy at 100 m	$S_a \leq 10$ mm	

Packaging	20 rds/cardboard box, 600 rds/cardboard box

Technical specification and numerical data are given as an indication only and are of no contractual nature.
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.300 Whisper SWISS P HV Styx Action
8.4 g / 130 gr

Outstanding stopping power while reducing the risk of collateral damage

Maximum performance in automatic weapo

High first hit probability even with short barrelled weapons at extended range

RUAG SWISS P
The Sniper's Choice

Application

The supersonic version of RUAG's famous .300 Whisper extends the operational range of the cartridge out to 300 meters and vastly enhances the terminal effect. It provides much more downrange energy than a comparable weapon of the same barrel length in 5.56x45mm.

The hyper-expanding hollow-point bullet deposits its energy by immediately expanding upon hitting the target. It provides excellent stopping power on soft targets, and tends to maintain the point-of-aim bullet track. The risk of overpenetration is minimized, reducing the chances of collateral damage.

Due to tight production tolerances, constant ballistic values are guranteed. Strict quality controls lead to identical ballistics regardless of the batch.

Cartridge	**.300 Whisper**	
projectile	JHP, 8.4 g / 130 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.2497 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	15.4 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 3 500 bar	(21°C)
muzzle velocity	650 m/s (2 133 fps)	450 mm barrel
muzzle energy	1775 J	
accuracy at 300 m	100% diameter ≤ 200 mm	

Packaging	20 rds/cardboard box, 600 rds/cardboard box

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.300 Whisper SWISS P Final
13.0 g / 200 gr

Outstanding stopping power avoids collateral damage due to total bullet disintegration

Provides a minimal accoustic profile to maintain the element of surprise

Physical and ballistic characteristics ensure subsonic flight in all environmental conditions

Best first hit probability

RUAG SWISS P
The Sniper's Choice

Application

The calibre .300 Whisper was specifically designed for subsonic shooting in urban terrain. The proportion of the chamber size and the amount of powder are optimised to ensure constant pressure build up and first hit probability.

The unique bullet made from pressed pellets instantaneously disintegrates when hitting a soft target even at subsonic speed. The penetration depth of the fragments is extremely small, minimising the risk of over penetration and increasing the safety of bystanders.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

Cartridge	**.300 Whisper**	
projectile	JPP, 13.0 g / 200 gr	
projectile material	tin plated tombac jacket, pressed lead pellets	
ballistic coefficient G1	0.1643 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	21.0 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 3 500 bar	(21°C)
muzzle velocity	315 m/s (1033 fps)	450 mm barrel
muzzle energy	645 J	
accuracy at 50 m	$S_a \leq 21$ mm	

Packaging	20 rds/cardboard box, 600 rds/cardboard box

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.300 Win. Mag. SWISS P Ball
11.4 g / 176 gr

Match grade accuracy

Minimised muzzle flash for better concealement of the shooter

Coordinated ballistics with SWISS P Target, Styx Action, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

Designed for Army and Police snipers, the SWISS P Ball, provides outstanding accuracy over an enhanced operation range.

The reliable primer and temperature stable powder achieve constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .300 Win. Mag. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**7.62x67 / .300 Win. Mag.**	
projectile	FMJ, 11.4 g / 176 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.5332 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	31.5 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 300 bar	(21°C)
muzzle velocity	865 m/s (2 838 fps)	650 mm barrel
muzzle energy	4 265 J	
accuracy at 300 m	$S_a \leq 32$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.300 Win. Mag. SWISS P Target
13.0 g / 200 gr

The most accurate .300 Win. Mag. round

Minimised muzzle flash for better concealement of the shooter

Coordinated ballistics with SWISS P Ball, Styx Action, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

This is the perfect round for highly accurate long range target shooting in competition and training.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .300 Win. Mag. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

The .300 Win. Mag. SWISS P Target is also available with a 14.3 g / 220 gr bullet.

Cartridge	**7.62x67 / .300 Win. Mag.**	
projectile	HPBT, 13.0 g / 200 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.5774 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	33.0 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 300 bar	(21°C)
muzzle velocity	870 m/s (2855 fps)	650 mm barrel
muzzle energy	4 920 J	
accuracy at 300 m	$S_a \leq 25$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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Tel. +41 332 282 879 | Fax +41 332 282 644 | sales.ammotec@ruag.com | **www.ruag.com**

.300 Win. Mag. SWISS P Target
14.3 g / 220 gr

The most accurate .300 Win. Mag. round

Extended supersonic range ensures improved accuracy and greater energy on target

Minimised muzzle flash for better concealement of the shooter

Coordinated ballistics with SWISS P Ball, Styx Action, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

This is the perfect round for highly accurate long range target shooting in competition and training.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .300 Win. Mag. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

The .300 Win. Mag. SWISS P Target is also available with a 13.0 g / 200 gr bullet.

Cartridge	**7.62x67 / .300 Win. Mag.**	
projectile	HPBT, 14.3 g / 220 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.6533 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	34.2 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 300 bar	(21°C)
muzzle velocity	845 m/s (2 772 fps)	650 mm barrel
muzzle energy	5 105 J	
accuracy at 300 m	$S_a \leq 25$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

Technical specification and numerical data are given as an indication only and are of no contractual nature.
01.2014

.300 Win. Mag. SWISS P Styx Action
12.8 g / 198 gr

Outstanding stopping power while reducing the risk of collateral damage

Match grade accuracy

Coordinated ballistics with SWISS P Ball, Target, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

The hyper expanding hollow point bullet immediately deposits its energy within a very short distance providing excellent stopping power on soft targets and is direction stable.

The sophisticated bullet tip provides an absolutely reliable hyper expansion to approximately the double of its original diameter.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .300 Win. Mag. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**7.62x67 / .300 Win. Mag.**	
projectile	HPBT, 12.8 g / 198 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.6116 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	33.0 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 300 bar	(21°C)
muzzle velocity	880 m/s (2887 fps)	650 mm barrel
muzzle energy	4 983 J	
accuracy at 300 m	$S_a \leq 27$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.300 Win. Mag. SWISS P AP
12.7 g / 196 gr

The most accurate Armour Piercing round

The tungsten carbide core provides outstanding penetration power

Extended barrel durability due to a patented projectile design

Coordinated ballistics with SWISS P Ball, Target, Styx Action and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

The tungsten carbide core is much harder and more ductile than most targets which makes it unstoppable for light armour. Because the core does not break apart during penetration, it transfers outstanding residual energy to the target.

Using only high quality raw materials and producing within tight tolerances ensures outstanding accuracy from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .300 Win. Mag. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**7.62x67 / .300 Win. Mag.**	
projectile	AP, 12.7 g / 196 gr	
projectile material	tombac jacket, tungsten carbide and lead cores	
ballistic coefficient G1	0.6066 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	33.0 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 300 bar	(21°C)
muzzle velocity	855 m/s (2 805 fps)	650 mm barrel
muzzle energy	4 642 J	
accuracy at 300 m	$S_a \leq 35$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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01.2014

.300 Win. Mag. SWISS P Tactical
12.1 g / 186 gr

Excellent first hit probability of targets behind angled glass

No projectile deflection and fragmentation ensure the safety of bystanders

Coordinated ballistics with SWISS P Ball, Target, Styx Action and Armour Piercing rounds

RUAG SWISS P
The Sniper's Choice

Application

The challenge is to accurately hit targets behind an angled window or wind shield without the risk of unpredictable bullet deflection. This could endanger bystanders, especially if the shooting line is not perpendicular to the window.

Conventional bullets break apart or fragment when penetrating glass which makes accurate shooting impossible. At least 90% of the residual body of the SWISS P Tactical bullet stays intact and it does not fragment at all.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

All .300 Win. Mag. SWISS P rounds have an identical point of impact at 100 m which allows the shooter to instantly change the bullet type.

Cartridge	**7.62x67 / .300 Win. Mag.**	
projectile	SFNBT, 12.1 g / 186 gr	
projectile material	CuZn - alloy	
ballistic coefficient G1	0.2998 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	32.0 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 300 bar	(21°C)
muzzle velocity	870 m/s (2854 fps)	650 mm barrel
muzzle energy	4 579 J	
accuracy at 300 m	$S_a \leq 18$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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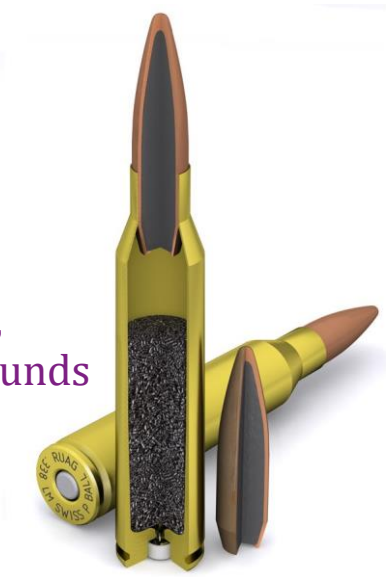
.338 Lapua Mag. SWISS P Ball
16.3 g / 251 gr

Match grade accuracy

Minimised muzzle flash for better concealement of the shooter

Temperature independent propellant guarantees a consistent point of impact

Coordinated ballistics with SWISS P Target, Styx Action, Armour Piercing and Tactical rounds



RUAG SWISS P
The Sniper's Choice

Application

Designed for Army snipers, the SWISS P Ball, provides outstanding accuracy over an enhanced operation range.

The reliable primer and temperature stable powder achieve constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .338 Lapua Mag. SWISS P rounds have an identical point of impact at 300 m which allows the shooter to instantly change the bullet type.

Cartridge	**8.6x70 / .338 Lapua Mag.**	
projectile	FMJ, 16.3 g / 251 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.6571 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	44.5 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 200 bar	(21°C)
muzzle velocity	855 m/s (2805 fps)	650 mm barrel
muzzle energy	5 958 J	
accuracy at 300 m	$S_a \leq 26$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.338 Lapua Mag. SWISS P Target
16.2 g / 250 gr

The most accurate .338 Lapua Mag. round

Minimised muzzle flash for better concealement of the shooter

Temperature independent propellant guarantees a consistent point of impact

Coordinated ballistics with SWISS P Ball, Styx Action, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

This is the perfect round for highly accurate long range target shooting in competition and training.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .338 Lapua Mag. SWISS P rounds have an identical point of impact at 300 m which allows the shooter to instantly change the bullet type.

The .338 Lapua Mag. SWISS P Target is also available with a 19.4 g / 300 gr bullet.

Cartridge	**8.6x70 / .338 Lapua Mag.**	
projectile	HPBT, 16.2 g / 250 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.6839 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	44.4 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 200 bar	(21°C)
muzzle velocity	865 m/s (2 838 fps)	650 mm barrel
muzzle energy	6 061 J	
accuracy at 300 m	$S_a \leq 25$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.338 Lapua Mag. SWISS P Target
19.4 g / 300 gr

The most accurate .338 Lapua Mag. round

Extended supersonic range ensures improved accuracy and greater energy on target

Temperature independent propellant guarantees a consistent point of impact

Coordinated ballistics with SWISS P Ball, Styx Action, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

This is the perfect round for highly accurate long range target shooting in competition and training.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .338 Lapua Mag. SWISS P rounds have an identical point of impact at 300 m which allows the shooter to instantly change the bullet type.

The .338 Lapua Mag. SWISS P Target is also available with a 16.2 g / 250 gr bullet.

Cartridge	**8.6x70 / .338 Lapua Mag.**	
projectile	HPBT, 19.4 g / 300 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.8311 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	47.6 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 200 bar	(21°C)
muzzle velocity	835 m/s (2 739 fps)	650 mm barrel
muzzle energy	6 763 J	
accuracy at 300 m	$S_a \leq 28$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.338 Lapua Mag. SWISS P Styx Action
16.0 g / 247 gr

Outstanding stopping power while reducing the risk of collateral damage

Match grade accuracy

Temperature independent propellant guarantees a consistent point of impact

Coordinated ballistics with SWISS P Ball, Target, Armour Piercing and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

The hyper expanding hollow point bullet immediately deposits its energy within a very short distance providing excellent stopping power on soft targets and is direction stable.

The sophisticated bullet tip provides an absolutely reliable hyper expansion to approximately the double of its original diameter.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .338 Lapua Mag. SWISS P rounds have an identical point of impact at 300 m which allows the shooter to instantly change the bullet type.

Cartridge	**8.6x70 / .338 Lapua Mag.**	
projectile	HPBT, 16.0 g / 247 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient G1	0.4328 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	44.2 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 200 bar	(21°C)
muzzle velocity	875 m/s (2871 fps)	650 mm barrel
muzzle energy	6 125 J	
accuracy at 300 m	$S_a \leq 27.5$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.338 Lapua Mag. SWISS P AP
16.8 g / 260 gr

The most accurate Armour Piercing round

The tungsten carbide core provides outstanding penetration power

Temperature independent propellant guarantees a consistent point of impact

Coordinated ballistics with SWISS P Ball, Target, Styx Action and Tactical rounds

RUAG SWISS P
The Sniper's Choice

Application

The tungsten carbide core is much harder and more ductile than most targets which makes it unstoppable for light armour. Because the core does not break apart during penetration, it transfers outstanding residual energy to the target.

Using only high quality raw materials and producing within tight tolerances ensures outstanding accuracy from batch to batch.

A wide range of special purpose bullets provide the desired terminal effect on hard and soft targets on every mission. All .338 Lapua Mag. SWISS P rounds have an identical point of impact at 300 m which allows the shooter to instantly change the bullet type.

The .338 Lapua Mag. SWISS P Armour Piercing is also available with a 19.4 g / 300 gr bullet.

Cartridge	**8.6x70 / .338 Lapua Mag.**	
projectile	AP, 16.8 g / 260 gr	
projectile material	tombac jacket, tungsten carbide and lead cores	
ballistic coefficient G1	0.6773 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	45.0 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 200 bar	(21°C)
muzzle velocity	847 m/s (2 789 fps)	650 mm barrel
muzzle energy	6 026 J	
accuracy at 300 m	$S_a \leq 25.5$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

Technical specification and numerical data are given as an indication only and are of no contractual nature.
01.2014

.338 Lapua Mag. SWISS P API
16.9 g / 261 gr

The most accurate Armour Piercing Incendiary round

The tungsten carbide core provides maximum penetration power, while the titanium tip provides incendiary marking

Coordinated ballistics with SWISS P Ball, Target, Styx Action and Armour Piercing rounds

RUAG SWISS P
The Sniper's Choice

Application

The tungsten carbide core is made from one of the hardest metals known to man, and resists deformation even when striking armor. Because the core stays intact during penetration it transfers extremely effective residual energy to targets that would ordinarily be shielded by light armor.

When the titanium tip strikes the target the energy transfer converts it into brightly glowing sparks, easily marking point of impact for the spotter. Since this cartridge contains no incendiary chemicals, it is not subject to the restrictive packaging, handling, and transportation issues suffered with standard API Cartridges.

Using only high quality raw materials and producing within tight tolerances ensures outstanding accuracy. Due to tight production tolerances, constant ballistic values are guranteed. Strict quality controls lead to identical ballistics regardless of the batch.

Cartridge	**8.6x70 / .338 Lapua Mag.**	
projectile	API, 16.2 g / 250 gr	
projectile material	CuZn - Tungstencarbide - Titanium	
ballistic coefficient G1	0.6785 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	44.4 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 200 bar	(21°C)
muzzle velocity	847 m/s (2 779 fps)	650 mm barrel
muzzle energy	6 076 J	
accuracy at 300 m	$S_a \leq 25$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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.338 Lapua Mag. SWISS P Tactical
16.2 g / 250 gr

Excellent first hit probability of targets behind angled glass

No projectile deflection and fragmentation ensure the safety of bystanders

Coordinated ballistics with SWISS P Ball, Target, Styx Action and Armour Piercing rounds

RUAG SWISS P
The Sniper's Choice

Application

The challenge is to accurately hit targets behind an angled window or wind shield without the risk of unpredictable bullet deflection. This could endanger bystanders, especially if the shooting line is not perpendicular to the window.

Conventional bullets break apart or fragment when penetrating glass which makes accurate shooting impossible. At least 90% of the residual body of the SWISS P Tactical bullet stays intact and it does not fragment at all.

Tight production tolerances and small production batches ensure constant ballistic values and stringent quality controls guarantee identical trajectory from batch to batch.

Cartridge	**8.6x70 / .338 Lapua Mag.**	
projectile	SFNBT, 16.2 g / 250 gr	
projectile material	CuZn - alloy	
ballistic coefficient G1	0.3751 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	44.4 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 4 200 bar	(21°C)
muzzle velocity	860 m/s (2821 fps)	650 mm barrel
muzzle energy	5 591 J	
accuracy at 300 m	$S_a \leq 28$ mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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01.2014

.338 Lapua Mag. SWISS P Subsonic
19.4 g / 300 gr

Enhanced projectile weight provides greater energy on target

Physical and ballistic characteristics ensure subsonic flight in all environmental conditions

Best first hit probability due to a special loading technique

Blue marked primer ensures proper selectio

RUAG SWISS P
The Sniper's Choice

Application

The extra heavy bullet provides additional energy to achieve an enhanced target effect.

The highly precise loading technique allows a cartridge load very close to the sound barrier, but without risking a supersonic bang. Even at subsonic speed, the heavy bullet provides enough energy to achieve a good terminal target effect.

The .338 Lapua Mag. SWISS P Subsonic is also available with a 16.2 g / 250 gr bullet.

Cartridge	**8.6x70 / .338 Lapua Mag.**	
projectile	HPBT, 19.4 g / 300 gr	
projectile material	tombac jacket, lead core	
ballistic coefficient C1	0.650 (ICAO)	
primer / propellant	SINOXID / double base powder	
case material	CuZn - alloy	
cartridge weight	44.0 g	
Performance		
term of reference	C.I.P.	
mean chamber pressure	max. 2 500 bar	(21°C)
muzzle velocity	315 m/s (1 033 fps)	27"barrel 1:10"twist
muzzle energy	962 J	
accuracy at 100 m	100% radius ≤ 55 mm	

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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10.2012

.338 Lapua Mag. Blank

Unique solution for live combat simulation training

Designed for perfect weapon's feed

RUAG is the only worldwide supplier

Application

The Blank cartridge is a non-lethal round perfectly suitable for combat simulation and training in weapons handling.

It has been designed to provide a reliable weapon function under extreme weather conditions and temperature fluctuations without effecting the weapon durability or causing excessive barrel strain.

Cartridge	**8.6x70 / .338 Lapua Mag.**
primer / propellant	SINOXID / double base powder
case material	CuZn - alloy
cartridge weight	26.0 g

Packaging	20 rds/cardboard box, 200 rds/cardboard box

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03.2012

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