

**MAXAM**  
Beyond Performance



PRODUCT  
CATALOGUE

**COMPONENTS**





## TABLE OF CONTENTS

Life Saving Rules	4
Introduction	6
MAXAM Milestones	8
MAXAM Outdoors	10
Powders	12
Shotshell Cases	20
Primers	24
Wads	26
Quality	28
Health & Safety	30
MAXAM Global Logistics Operator	32
Recommendations for Safe Loading	34
MAXAM Components Order Platform	36
MAXAM Strategic Memberships	38

A partir de aquí  
USO OBLIGATORIO





# LIFE SAVING RULES

Our Life Saving Rules define seven basic safety principles to keep us safe and prevent accidents and are always our priority. Safety First is one of our key messages both internally and externally.

These rules have been developed by a multidisciplinary team with extensive experience in all of MAXAM's business areas and departments, thereby covering all of the company's work activities.

1



**Tasks** should only be performed once their **hazards** and **associated risks** have been **assessed and controlled** and with the proper training.

2



**Always wear** required Personal Protection Equipment (PPE) for each task or work area.

3



Every **accident, incident or near miss** has to be **reported immediately**.

4



**Safety guards and devices** must always be in **working condition**, and must be respected.

5



When **fire** has **reached explosives or oxidizers**, **never** attempt to **extinguish** it.

6



**Always wear seat belts** in any kind of vehicle.

7



**No drugs or alcohol** while **working or driving**.

MAXAM





# INTRODUCTION

MAXAM is a global technology company, specializing in the design, development, manufacture and application of energy materials. It structures its activity into four business units:

- Blasting solutions for mining, quarries and infrastructures.
- Components such as powders for shotgun and metallic ammunition, cases, wads and primers and cartridges for hunting and shooting.
- Products and services for the defence industry.
- Key raw materials for the nitro chemical industry manufacturing various types of nitrocellulose which are used in ammunition for hunting cartridges, explosive for mining, quarrying, civil works, and propellants for rockets or army ammunition.

Founded by Alfred Nobel in 1872, MAXAM currently has in excess of 6,500 employees, more than 50 subsidiaries, 110 operating companies and sales in more than 100 countries.

MAXAM is an independent and profitable entity who is proud of its global, committed and diverse team where innovation is the key to success. Your success means our success.

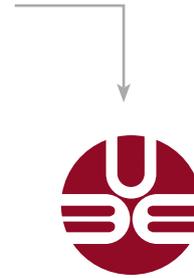




# MAXAM MILESTONES

Alfred Nobel founds the Sociedad Española de la Pólvora Dinamita. Privilegios A. Nobel, with its head office in Galdácano (Bilbao), Spain.

**1872**



The company Nobel merges with eight societies creating the Unión Española de Explosivos, S.A. (UEE).

**1896**

**1899**

UEE starts manufacturing and commercializing cartridges for sports and hunting.

**1911**

They start to produce military gunpowder for the Spanish Navy.

**1970**

UEE and the Compañía Española de Minas Río Tinto merge to create Unión Explosivos Río Tinto, S.A. (ERT)

After a process of major restructuring and adjustment in UEE a period of consolidation and international expansion begins

**1994**



Dedicated section created for worldwide Component sales.

**2010**



**MAXAM**

The UEE Group changes its name and Corporate identity to MAXAM. MAXAM Foundation is created

**2006**



UEE starts its worldwide development.

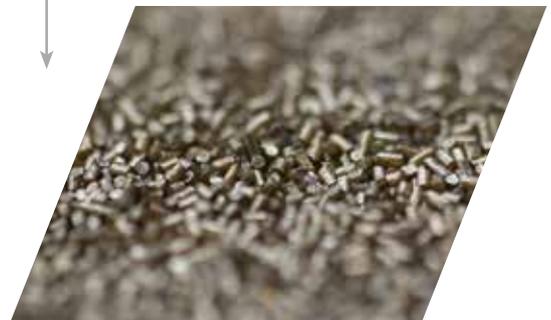
**2001**



**MAXAM**

MAXAM launches its first powder specifically designed for metallic ammunition; GDB III. MAXAM launches reloading website and guide for rifled-bore barrels. MAXAM launches its new worldwide image.

**2016**



Today, our products reach more than 40 countries on five continents with our widest every product offering three ranges of case colours containing more than 30 different tones, 18 powders and four wads options.

**2019**



# MAXAM OUTDOORS

MAXAM Outdoors is the world leader in the development, manufacturing and sale of both single- and double-base powders, cases, wads and primers and cartridges for hunting and shooting. Our nearly 125 years of history and experience guarantee our wide range of products with the most rigorous quality control measures meaning that you will make the best cartridges possible for your brand. Our in-house developed technology, flexibility, capability and independence, enables us to offer a wide range of products and services competitively responding to growth opportunities.

We produce our components in two factories in northern Spain. In our Iruña factory we produce our cases, primers and wads and in the Galdácano factory we produce our powders. From these factories we are able to export to any cartridge manufacturer in the world.

Every day millions of hunters and shooters around the world enjoy cartridges manufactured using MAXAM powder, cases, primers or wads. Our commitment to our customers does not simply end when you purchase our products. MAXAM strives not just to be your components supplier but rather you partner in cartridge manufacturing and assist you along this complicated process. With our customers we are jointly developing safety programs and performing safety talks in their premises, giving them access to technical experts to improve their production process.

Each and every component is perfectly traceable, complying with the exacting criteria of our customers and international norms such as CIP and guidelines suggested by SAAMI.

With our customers in mind we have also developed our BrandCenter giving them access to the MAXAM logo, high-definition images and templates to create customized, print-ready posters.

With manufacturing capabilities of more than 600 million cases, million of primers and countless tonnes of gunpowder MAXAM is the world's leading component and cartridge producer. At MAXAM we have the utmost confidence in our own components and we use them to manufacture our various cartridge brands used around the world.

MAXAM Outdoors – Leading Cartridge Components Manufacturing



MAXAM's factory in Galdácano



MAXAM's factory in Iruña





# POWDERS

MAXAM Outdoors prides itself in offering the best smokeless propellants on the market. Every batch of commercial powder is subjected to stringent quality control in order to verify physical, chemical and ballistic characteristics so that the expected speed and pressure are always obtained. Our powders are single- and double-based propellant explosives manufactured from nitrocellulose which has been properly gelled and stabilized.

Our powders are made from stable nitrocellulose in a gel form which then passes through a treatment to regulate their porosity. Then through extrusion, they turn into circular or small square particles with medium-low gravimetric density (CSB, PSB+, and SSB+) or into small cylinders with hollow centres with high bulk density (GSB 146 and GDB III).

The small particle size makes them easy to dispense and the regularity of the grain guarantees consistent ballistics. Our powders are consistent and regular due to strict quality controls.

Gelatinisation is done with a solvent that evaporates similar to CSB, PSB+, SSB+, and GSB 146, which are all single based.

For GDB III, which is a double-based powder, nitroglycerine is also used as a fixed solvent. Through our research and development teams we are constantly developing new powders for use with metallic ammunition.

Combustion is standard and waste left in the barrel, with the correct dose, is practically zero.

# RELOADING DATA

For years now MAXAM's smokeless gunpowders have been known and revered the world over by hunters and shooters for their reloading needs. We have designed our webpage to give reloaders all the important dosage data they need to make their own cartridges safely.

Our link is: <http://reloading.maxam.net/>

## Disclaimer:

The data presented in this catalogue has been obtained from a ballistics laboratory under strictly-controlled conditions. Any variation or change, however small, to the data in this table can result in significant changes in ballistics. Also the different environmental conditions (such as temperature or humidity) can significantly influence the ballistic values. Any component, particularly the powder, is subject to changes depending on the production batch. We recommend that you should always start the test with a dosage reduction of 10% in this table.

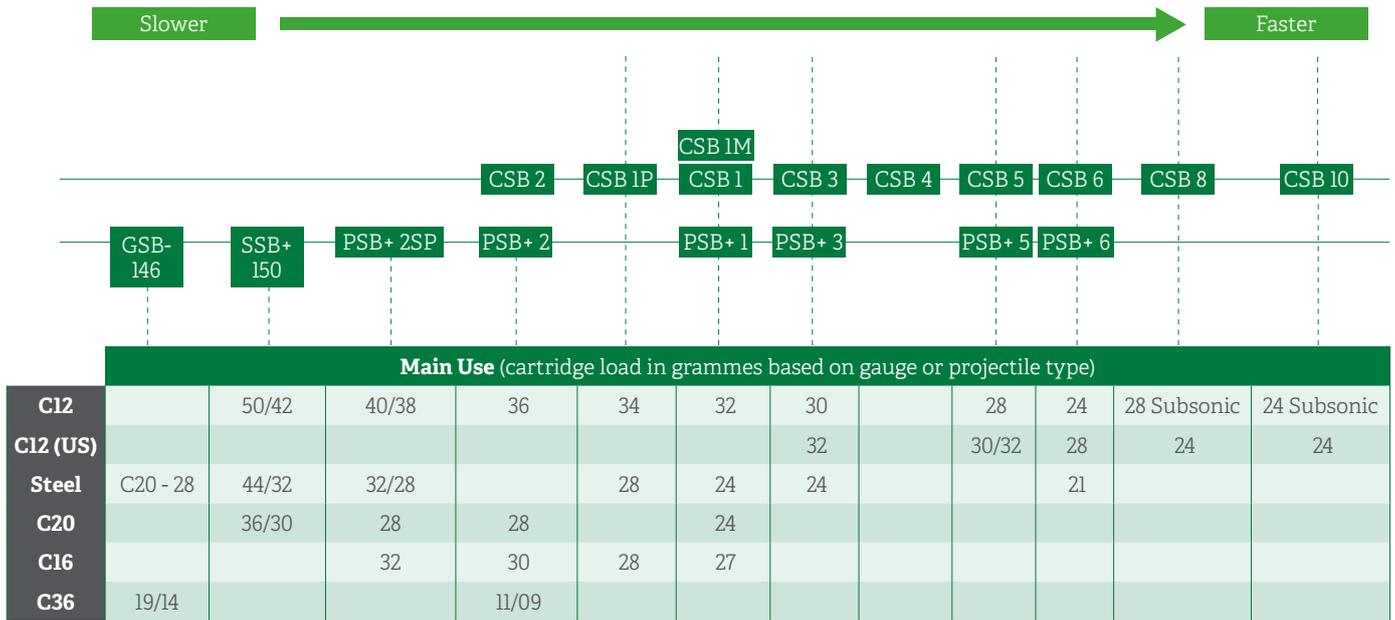
Do not mix powders of various kinds.

Do not exceed the values given in this table.

MAXAM Outdoors, S.A. not having the ability to control individual reloading activities, rejects all liability and responsibility for damage or injury of any nature, to objects, or to persons from the use of powders and to which is referred to in the published tables. Responsibility remains with the user.



# BURNING SPEED RATE



## POWDER PACKAGING

Powder	Drum Capacity kg	Type of Drum litres	Drum Diameter mm	Drum Height mm	Drum Weight kg
CSB 1	25	50	370	535	2.3
CSB 1M	25	50	370	535	2.3
CSB 1P	25	50	370	535	2.3
CSB 2	25	50	370	535	2.3
CSB 3	25	50	370	535	2.3
CSB 4	25	50	370	535	2.3
CSB 5	14	37	370	385	2.2
CSB 6	10	37	370	385	2.2
CSB 8	6	32	370	335	2.1
CSB 10	5	32	370	335	2.1
PSB+ 1	25	50	370	535	2.3
PSB+ 2	25	50	370	535	2.3
PSB+ 2SP	25	50	370	535	2.3
PSB+ 3	25	50	370	535	2.3
PSB+ 5	14	37	370	385	2.2
PSB+ 6	10	37	370	385	2.2
SSB+150	20	50	370	535	2.3
GDB 111	20	50	370	535	2.3
GSB 146	20	32	370	335	2.1

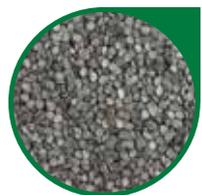
## POWDER TRANSPORT

Packaging	Approx. Kilos
BARREL	5kg - 25kg
PALLET	9 barrels
TRUCK (length: 13.5m, height: 2.5m, width: 2.45m)	16,000 kg
20' CONTAINER	9,000 kg
40' CONTAINER	13,500 kg
40' CONTAINER HC	15,300 kg

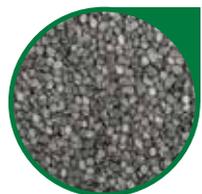
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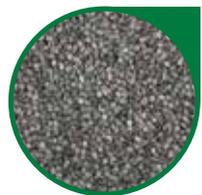
# POWDERS



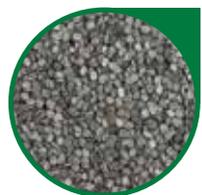
CSB 1	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
		12	1,75	32	405	550	
Calibre	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	
30 Luger	93,5 LRN	3,9/4,3	104,1 CRN	3,9/4,3	97,7 JRN	3,7/4,1	
9 x 19	125,1 LRN	3,7/4,1	124,3 CRN	3,6/4,0	123,3 JRN	3,4/3,8	
9 X 21	125,1 LRN	4,2/4,6	124,3 CRN	4,2/4,6	123,3 JRN	4,3/4,7	
38 SA	125,1 LRN	5,1/5,6	124,3 CRN	4,8/5,3	123,3 JRN	4,9/5,4	
357 Magnum	160 LRN	6,3/7,0	158,9 CTC	6,2/6,9	142,7 JTC	7,5/8,3	
40 S&W	181,9 LTC	4,5/5,0	181,4 CFP	4,6/5,1	170,2 JTC	5,1/5,6	
<b>Shape: disc / Colour: grey / Dimension: 1.7mm / Thickness 0.3mm / Density 545 g/l</b>							



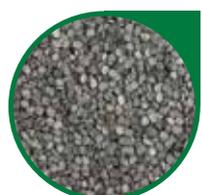
CSB 1P	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
		12	1,8	34	395	650	
	20	1,30	24	405	650		
<b>Shape: disc / Colour: grey / Dimension: 1.7mm / Thickness 0.3mm / Density 555 g/l</b>							



CSB 1M	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
		12	1,75	32	406	533	
Calibre	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	
30 Luger	93,5 LRN	3,9/4,3	104,1 CRN	3,9/4,3	97,7 JRN	3,7/4,1	
9 X 19	125,1 LRN	3,7/4,1	124,3 CRN	3,6/4,0	123,3 JRN	3,4/3,8	
9 X 21	125,1 LRN	4,2/4,6	124,3 CRN	4,2/4,6	123,3 JRN	4,3/4,7	
38 SA	125,1 LRN	5,1/5,6	124,3 CRN	4,8/5,3	123,3 JRN	4,9/5,4	
357 Magnum	160 LRN	6,3/7,0	158,9 CTC	6,2/6,9	142,7 JTC	7,5/8,3	
40 S&W	181,9 LTC	4,5 / 5,0	181,4 CFP	4,6 / 5,1	170,2 JTC	5,1 / 5,6	
<b>Shape: disc / Colour: grey / Dimension: 1.4mm / Thickness 0.3mm / Density 585 g/l</b>							



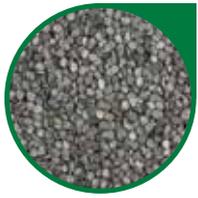
CSB 2	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
		12	1,85	34	400	600	
	12	1,85	36	390	650		
	20/70	1,45	25	405	650		
	16	1,60	28	405	650		
Calibre	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	
30 Luger	93,5 LRN	4,5 / 4,9	104,1 CRN	4,3 / 4,7	97,7 JRN	4,3 / 4,7	
9 x 19	125,1 LRN	4,4 / 4,8	124,3 CRN	4,3 / 4,7	123,3 JRN	4,1 / 4,5	
9 X 21	125,1 LRN	5,0 / 5,5	124,3 CRN	5,1 / 5,6	123,3 JRN	4,9 / 5,4	
38 SA	125,1 LRN	6,1/ 6,6	124,3 CRN	5,9 / 6,4	123,3 JRN	5,9 / 6,4	
357 Magnum	160 LRN	8,1/ 8,9	158,9 CTC	8,3 / 9,1	142,7 JTC	9,2 / 10,0	
40 S&W	181,9 LTC	5,0 / 5,5	181,4 CFP	4,7 / 5,2	170,2 JTC	5,6 / 6,2	
<b>Shape: disc / Colour: grey / Dimension: 1.7mm / Thickness 0.3mm / Density 565 g/l</b>							



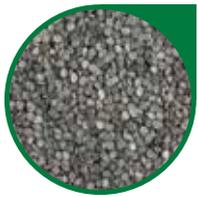
CSB 3	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
		12	1,65	30	409	552	
Calibre	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	
32 ACP	87,2 LRN	2,1/2,3	79,2 CRN	2,1/2,3	73,5 JRN	2,2/2,4	
30 Luger	93,5 LRN	3,4/3,7	104,1 CRN	3,3/3,6	97,7 JRN	3,3/3,6	
380 ACP	94,6 LRN	2,9/3,2	108,4 CRN	2,3/2,6	92,9 JRN	3,0/3,4	
9 x 19	125,1 LRN	3,1/3,5	124,3 CRN	3,0/3,4	123,3 JRN	2,8/3,2	
38 Special	160 LRN	3,8/4,2	158,9 CTC	3,4/3,8	142,7 JTC	4,0/4,4	
45 ACP	233,2 LRN	4,1/4,6	232,5 CRN	4,2/4,7	229,2 JRN	4,6/5,1	
<b>Shape: disc / Colour: grey / Dimension: 1.7mm / Thickness 0.3mm / Density 535 g/l</b>							



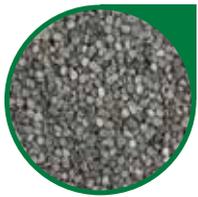
# POWDERS



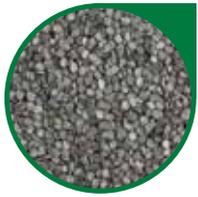
CSB 4	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
		12	1,50	28	411	577	
	Calibre	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)
	32 ACP	87,2 LRN	1,8/2,0	79,2 CRN	2,1/2,3	73,5 JRN	1,9/2,1
	30 Luger	93,5 LRN	3,6/4,0	104,1 CRN	3,3/3,7	97,7 JRN	3,4/3,8
	380 ACP	94,6 LRN	2,7/3,0	108,4 CRN	2,4/2,7	92,9 JRN	2,8/3,1
	9 x 19	125,1 LRN	3,4/3,7	124,3 CRN	3,2/3,5	123,3 JRN	3,1/3,4
	38 Special	160 LRN	3,7/4,1	158,9 CTC	3,5/3,9	142,7 JTC	3,9/4,3
	45 ACP	233,2 LRN	3,7/4,2	232,5 CRN	4,4/4,9	229,2 JRN	4,2/4,7
<b>Shape: disc / Colour: grey / Dimension: 1.4mm / Thickness 0.3mm / Density 500 g/l</b>							



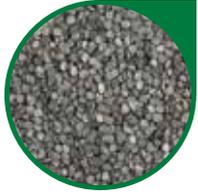
CSB 5	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
		12	1,40	28	395	535	
	28	0,87	15	405	600		
	Calibre	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)
	32 ACP	87,2 LRN	1,7 / 1,9	79,2 CRN	1,8 / 2,0	73,5 JRN	1,8 / 2,0
	30 Luger	93,5 LRN	3,1 / 3,4	104,1 CRN	3,0 / 3,3	97,7 JRN	3,0 / 3,3
	380 ACP	94,6 LRN	2,6 / 2,9	108,4 CRN	2,1 / 2,3	92,9 JRN	2,7 / 3,0
	9 x 19	125,1 LRN	3,1 / 3,5	124,3 CRN	3,0 / 3,4	123,3 JRN	2,9 / 3,2
	38 Special	160 LRN	3,3 / 3,6	158,9 CTC	3,0 / 3,3	142,7 JTC	3,4 / 3,8
	45 ACP	233,2 LRN	3,4 / 3,8	232,5 CRN	3,5 / 3,9	229,2 JRN	3,8 / 4,2
<b>Shape: disc / Colour: grey / Dimension: 1.7mm / Thickness 0.3mm / Density 510 g/l</b>							



CSB 6	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
		12	1,30	24	418	607	
	Calibre	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)	Bullet	Min/Max (grs)
	32 ACP	87,2 LRN	1,5 / 1,7	79,2 CRN	1,7 / 1,9	73,5 JRN	1,9 / 2,1
	32 S&W Long	100 LWC	1,0 / 1,2			71,0 JRN	2,9 / 3,2
	30 Luger	110 LRN	2,7 / 3,0			93,0 JRN	3,1 / 3,5
	30 Tokarev	100 LRN	3,6 / 4,0			85,0 JRN	4,0 / 4,4
	380 ACP			108,4 CRN	2,0 / 2,3	92,9 JRN	2,6 / 2,9
	9 x 19	125,1 LRN	2,8 / 3,1	124,3 CRN	2,7 / 3,0		
	40 S&W	160 LRN	3,3 / 3,6	158,9 CTC	3,0 / 3,3	142,7 JTC	3,4 / 3,8
	45 ACP			232,5 CRN	3,2 / 3,5	229,2 JRN	3,6 / 4,0
	45 Colt	255 LGC	5,3 / 5,9			240 JHC	5,7 / 6,3
<b>Shape: disc / Colour: grey / Dimension: 1.7mm / Thickness 0.3mm / Density 480 g/l</b>							



CSB 8	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
		12	1,00	24	380	680	
<b>Shape: disc / Colour: blue / Dimension: 1.4mm / Thickness 0.3mm / Density 390 g/l</b>							



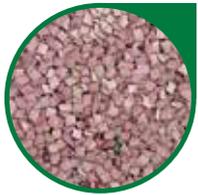
CSB 10	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
		12	1,00	24	387	865	
<b>Shape: disc / Colour: blue / Dimension: 1.4mm / Thickness 0.3mm / Density 355 g/l</b>							



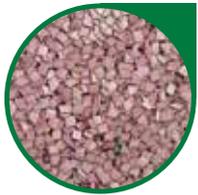
# POWDERS



Type	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
PSB+ 1	12	1,75	32	400	550		
	<b>Calibre</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>
	30 Luger	110 LRN	3,4 / 3,8			93,0 JRN	4,2 / 4,7
	30 Tokarev	100 LRN	4,9 / 5,4			85,0 JRN	5,4 / 5,9
	380 ACP	93,0 LRN	2,8 / 3,1			93,0 JRN	3,2 / 3,5
	9x19			124 CRN	3,7 / 4,1	115 JRN	4,0 / 4,4
	9x21			124 CRN	4,5 / 4,9	123 JRN	4,5 / 4,9
	38 SA			124 CRN	5,5 / 6,0	123 JRN	5,3 / 5,7
	38 Special	158 LRN	4,2 / 4,7	158 CTC	4,6 / 5,1	143 JTC	5,1 / 5,7
	40 S&W	180 CTC	4,6 / 5,0			170 JTC	5,0 / 5,5
45 ACP	200 LFN	5,6 / 6,2	230 CRN	4,5 / 5,0	230 JRN	5,1 / 5,6	
<b>Shape:</b> flake / <b>Colour:</b> grey / <b>Dimension:</b> 1.5x1.5mm / <b>Thickness</b> 0.45m / <b>Density</b> 570 g/l							



Type	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
PSB+ 2	12	1,85	36	395	650		
	<b>Calibre</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>
	30 Luger	110 LRN	3,6 / 4,1			93,0 JRN	4,4 / 4,9
	30 Tokarev	100 LRN	5,3 / 5,8			85,0 JRN	5,8 / 6,4
	9x19	124 LRN	3,4 / 3,8	124 CRN	4,0 / 4,4	115 JRN	4,3 / 4,7
	9x21			124 CRN	4,8 / 5,3	123 JRN	4,8 / 5,2
	38 SA			124 CRN	6,0 / 6,5	123 JRN	5,6 / 6,1
	40 S&W	180 CTC	4,7 / 5,2			170 JTC	5,3 / 5,8
	357 Mag			158 CTC	7,6 / 8,4	143 JTC	8,0 / 8,8
	44 Mag			240 LTC	10,4 / 11,5	240 JSP	10,6 / 11,7
460 S&W	297 LGC	19,2 / 21,0			200 FTX	23,4 / 25,6	
<b>Shape:</b> flake / <b>Colour:</b> pink / <b>Dimension:</b> 1.5x1.5mm / <b>Thickness</b> 0.45m / <b>Density</b> 580 g/l							



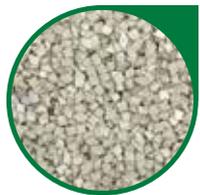
Type	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
PSB+ 2SP	12	2,00	36	400	650		
	12	2,00	38	395	700		
	20/70	1,40	28	380	700		
	36/63	0,67	11	395	650		
	<b>Calibre</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>
	30 Luger	110 LRN	3,7 / 4,1			93,0 JRN	4,4 / 4,9
	30 Tokarev	100 LRN	5,2 / 5,8			85,0 JRN	6,1 / 6,7
	9x19	124 LRN	3,5 / 3,9	124 CRN	4,4 / 4,8	123 JRN	4,9 / 5,4
	9x21	124 LRN	5,2 / 5,7	124 CRN	5,4 / 5,9	123 JRN	4,9 / 5,4
	38 SA			124 CRN	5,8 / 6,4	123 JRN	5,5 / 6,0
	40 S&W	180 CTC	4,7 / 5,2			170 JTC	5,2 / 5,7
	357 Mag			158 CTC	7,7 / 8,5	143 JTC	8,2 / 9,0
	44 Mag			240 LTC	10,7 / 11,9	240 JSP	10,6 / 11,7
	460 S&W	297 LGC	18,5 / 20,3			200 FTX	23,0 / 25,2
<b>Shape:</b> flake / <b>Colour:</b> pink / <b>Dimension:</b> 1.5x1.5mm / <b>Thickness</b> 0.45m / <b>Density</b> 580 g/l							



Type	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
PSB+ 3	12	1,65	30	410	600		
	<b>Calibre</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>
	32 ACP	78 LRN	2,2 / 2,4	80 CRN	2,3 / 2,5	73 JRN	2,5 / 2,8
	32 S&W Long	100 LWC	1,5 / 1,6			71 JRN	3,5 / 3,8
	30 Luger	110 LRN	3,4 / 3,8			93,0 JRN	4,0 / 4,5
	30 Tokarev	100 LRN	4,7 / 5,2			85,0 JRN	5,1 / 5,7
	380 ACP	93,0 LRN	3,1 / 3,4			93,0 JRN	3,2 / 3,5
	9x19			124 CRN	3,7 / 4,1	115 JRN	3,9 / 4,2
	38 Special	158 LRN		158 CTC	4,5 / 5,0	143 JTC	4,9 / 5,4
	45 ACP	200 LFN	5,4 / 5,9	230 CRN	4,6 / 5,1	230 JRN	5,0 / 5,6
45 Colt	255 LTC	7,2 / 7,9			240 JHC	8,0 / 8,8	
<b>Shape:</b> flake / <b>Colour:</b> green / <b>Dimension:</b> 1.5x1.5mm / <b>Thickness</b> 0.45m / <b>Density</b> 560 g/l							

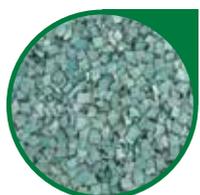


# POWDERS



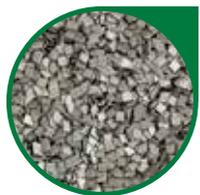
Type	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
PSB+ 5	12	1,40	28	398	504		
				400	550		
	<b>Calibre</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>
	32 ACP	78 LRN	1,8 / 2,0	80 CRN	1,9 / 2,2	73 JRN	2,2 / 2,4
	32 S&W Long	100 LWC	1,3 / 1,5			71 JRN	3,2 / 3,5
	30 Luger	110 LRN	3,0 / 3,4			93,0 JRN	3,6 / 4,0
	30 Tokarev	100 LRN	4,2 / 4,6			85,0 JRN	4,6 / 5,1
	380 ACP	93,0 LRN	2,4 / 2,7			93,0 JRN	2,6 / 2,9
	9x19			124 CRN	3,1 / 3,4	115 JRN	3,4 / 3,7
	38 Special	158 LRN	3,7 / 4,1	158 CTC	3,8 / 4,3	143 JTC	4,2 / 4,7
	45 ACP	200 LFN	4,5 / 5,0	230 CRN	3,9 / 4,4	230 JRN	4,3 / 4,7
45 Colt	255 LTC	6,3 / 6,9			240 JHC	6,9 / 7,5	

**Shape:** flake / **Colour:** grey / **Dimension:** 1.5x1.5mm / **Thickness** 0.45m / **Density** 530 g/l



Type	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
PSB+ 6	12	1,20	24	400	501		

**Shape:** flake / **Colour:** green / **Dimension:** 1.5x1.5mm / **Thickness** 0.45m / **Density** 480 g/l



Lead							
Type	Gauge	Length	Lead (g.)	Powder (g.)	Velocity (m/s)	Pressure (bar)	
SSB+150	12	70	42	2,25	390	580	
	12	76	50	2,47	385	650	
	20	70	28	1,57	405	600	
	20	70	30	1,60	390	650	
	20	70	32	1,63	380	750	
	28	70	21	1,35	395	580	

**Shape:** square / **Colour:** black / **Dimension:** 1.5x1.5 mm / **Thickness** 0.45mm / **Density** 545 g/l

Steel							
Type	Gauge	Length	Lead (g.)	Powder (g.)	Velocity (m/s)	Pressure (bar)	
SSB+150	12	70	32	2,05	415	650	
	12	76	32	2,70	470	800	
	12	76	36	2,45	425	850	
	12	76	40	2,10	395	850	
	20	70	24	1,40	410	750	
	<b>Calibre</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>	<b>Bullet</b>	<b>Min/Max (grs)</b>
	30 Luger	110 LRN	4,2 / 4,8			93,0 JRN	5,0 / 5,6
	30 Tokarev	100 LRN	6,2 / 6,7				
	9 x 21			124 CRN	5,5 / 6,0	123 JRN	5,5 / 6,0
	38 SA			124 CRN	6,6 / 7,3	123 JRN	6,8 / 7,5
	357 Mag			158 CTC	8,4 / 9,2	143 JTC	8,8 / 9,6
	44 Mag	240 LTC	12,3 / 13,5			240 JSP	12,9 / 14,2

**Shape:** square / **Colour:** black / **Dimension:** 1.5x1.5 mm / **Thickness** 0.45mm / **Density** 545 g/l



Type	Gauge	Powder (g.)	Lead (g.)	Velocity (m/s)	Pressure (bar)		
GSB 146	12-76	2,50	36	425	700		
	12-76	2,70	40	395	750		
	12-86	3,10	40	455	800		
	12-86	2,85	44	395	750		
	20-76	1,90	28	425	700		

**Shape:** cylinder / **Colour:** grey / **Dimension:** 0.85x0.46mm / **Density** 700 g/l



# POWDERS



Powder	Calibre	Bullet	Shotshell case	Primer	C.O.L. mm	Initial Load			Maximum Load		
						Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	223 Remington	69 HPBT Sierra	Partizan	CCI 400 Small Rifle	57,40	21,5	810	2.568	23,0	870	3.198
	223 Remington	55 FMJBT Sierra	Partizan	CCI 400 Small Rifle	56,80	23,0	927	2.886	24,5	991	3.576
	223 Remington	55 SPBT Sierra	Partizan	CCI 400 Small Rifle	55,40	23,0	923	3.066	24,5	987	3.839
	223 Remington	55 TSXFB Barnes	Partizan	CCI 400 Small Rifle	55,40	23,0	923	3.066	24,5	987	3.839
	223 Remington	55 Ballistic Tip Nosler	Partizan	CCI 400 Small Rifle	57,40	23,5	914	2.617	25,0	977	3.249
	243 Winchester	100 SPBT Sierra	Partizan	CCI 200 Large Rifle	67,30	31,0	804	3.225	33,0	858	3.863
	243 Winchester	95 Ballistic Tip Nosler	Partizan	CCI 200 Large Rifle	68,10	31,1	824	3.187	33,0	877	3.784
	243 Winchester	80 Barnes TTSSX	Partizan	CCI 200 Large Rifle	66,30	32,0	887	3.099	34,0	946	3.711
	243 Winchester	80 SPBT Sierra	Partizan	CCI 200 Large Rifle	66,90	32,9	900	2.953	35,9	988	3.830
	270 Winchester	160 Partition Nosler	Partizan	CCI 200 Large Rifle	84,30	41,0	749	3.303	44,0	806	4.091
	270 Winchester	130 TTSX Barnes	Partizan	CCI 200 Large Rifle	81,60	42,0	831	3.284	45,0	893	4.068
	270 Winchester	140 SPBT Sierra	Partizan	CCI 200 Large Rifle	83,80	42,4	813	3.308	45,4	874	4.074
	270 Winchester	140 Partition Nosler	Partizan	CCI 200 Large Rifle	84,30	42,5	806	3.306	45,5	867	4.073
	270 Winchester	140 Ballistic Tip Nosler	Partizan	CCI 200 Large Rifle	84,00	42,5	806	3.247	45,7	870	4.063
	308 Winchester	180 Partition Nosler	Partizan	CCI 200 Large Rifle	71,00	33,9	686	2.801	37,5	762	3.824
	308 Winchester	180 SPBT Sierra	Partizan	CCI 200 Large Rifle	71,00	34,7	699	2.828	38,0	768	3.739
	308 Winchester	150 TTSX Barnes	Partizan	CCI 200 Large Rifle	72,40	35,0	744	2.872	37,5	799	3.550
	308 Winchester	175 HPBT Sierra	Partizan	CCI 200 Large Rifle	70,80	35,4	736	3.428	36,0	749	3.604
	308 Winchester	168 HPBT Sierra	Partizan	CCI 200 Large Rifle	71,00	36,2	755	3.388	37,5	783	3.770
	308 Winchester	150 SPBT Sierra	Partizan	CCI 200 Large Rifle	71,00	37,4	742	2.549	40,0	838	3.665
	308 Winchester	150 Partition Nosler	Partizan	CCI 200 Large Rifle	71,00	38,2	808	3.424	39,0	825	3.647
	30-06 Springfield	168 TTSX Barnes	Partizan	Fiocchi Large Rifle	83,00	40,6	714	2.275	47,5	841	3.753
	30-06 Springfield	180 SPBT Sierra	Partizan	Fiocchi Large Rifle	81,90	42,1	719	2.392	47,0	806	3.370
	30-06 Springfield	180 Partition Nosler	Partizan	Fiocchi Large Rifle	84,00	42,5	722	2.483	48,0	819	3.635
30-06 Springfield	150 SPBT Sierra	Partizan	Fiocchi Large Rifle	81,90	44,9	794	2.403	50,5	898	3.482	
30-06 Springfield	150 Partition Nosler	Partizan	Fiocchi Large Rifle	84,00	46,7	821	2.667	51,5	910	3.626	

**Shape:** cylindrical, single perforated / **Colour:** black / **Dimension:** 1.1x0.12mm / **Thickness** 0.33mm / **Density** 800-1,000 g/dm3



# SHOTSHELL CASES

MAXAM Outdoors shotshell cases conform to strict quality criteria to answer the most demanding needs of manufacturers and individual loaders. MAXAM Outdoors applies the most recent technologies to reach the highest levels of regularity in manufacturing and uses polyethylene which is renowned for its strength and resistance especially in extreme climate conditions.

Our shotshell cases come in either primed or unprimed.

We manufacture our cases in our main factory in northern Spain and also in our North American facility which is based in Marshall, Texas.

- General Key Points:
  - Specially conceived primer receptacle to achieve a reinforced and regular positioning with high sensitivity in all types of firearms.
  - High precision milling and a perfect edge guarantees a regular and symmetric crimp closure of the cartridge. Exhaustive dimensional examinations of the tube for regularity and ease of loading.
  - Plastic tube manufactured from high density polyethylene which goes through a thermo mechanical and bi-directional (axial and radial) process. Excellent elasticity of tube for sealing the cartridge while maintaining outstanding mechanical resistance.
- Exceptional mechanical properties of the high density polyethylene base wad which contributes to the high resistance to separation of the tube and the base.
- Precise design of the base wad for a perfect assemblage of the shell.
- Plated steel brass or nickel base produced by the means of a progressive high precision stamping process resulting in a perfect chambering of the cartridge.
- Base with extraordinary mechanical resistance able to endure high pressures and guaranteeing strength of the shell.
- Special chemical treatment to protect the base against corrosion and give a spectacular shiny finish.





# SHOTSHELL CASES

## Standard



Black

12



White

12



Light Grey

12



Vanilla

12 / 20



Yellow

12 / 20



Bottle Green

12



Green

12 / 16



Light Green

12 / 16



Brick

12



Cherry

12 / 16



Red

12 / 16



Orange

12



Dark Pink

12



Light Pink

12



Purple

12



Ocean Blue

12



RIO Blue

12 / 16



Graphite

12



Light Brown

12



Dark Brown

12



## Metallic



Copper

12



Gold

12



Metallic Blue

12



Metallic Red

12



Silver

12

## Transparent



Transparent

12 / 16 / 20



Transparent Blue

12



Transparent Lime

12



Transparent Orange

12



Transparent Yellow

12



Transparent Red

12

Length	10 Brass	12 Brass	16 Brass	25 Brass	25 Nickel-plated
50	12	12	12		
65	12	12	12		
67	12	12 16 20	12 16 20	12	12
70	12	12 16 20	12 16 20	12	12
76			20	12	12
86			12		
89	12	12	12	12	12

**Classification** 1.4S, UN0055

Packaging												
GAUGE	12								16		20	
BASE	10	12	16				25		12	16	12	16
LENGTH	65 / 67 / 70	65 / 67 / 70	65 / 67 / 70	76	86	89	70	76	67 / 70	67 / 70	67 / 70	67 / 70
BOX	2.000	2.000	2.000	1.800	1.500	1.500	2.000	1.800	2.400	2.400	2.500	2.500
BOXES PER PALLET	30	30	30	30	30	30	30	30	30	30	30	30
PALLET	60.000	60.000	60.000	54.000	45.000	45.000	60.000	54.000	72.000	72.000	75.000	75.000
TRUCK (length: 13.5m, height: 2.5m, width: 2.45m)	780 boxes 1.560 million cases			700 boxes 1.404 million cases	780 boxes 1.170 million cases	780 boxes 1.170 million cases	780 boxes 1.560 million cases	780 boxes 1.404 million cases	780 boxes 1.872 million cases		780 boxes 1.950 million cases	
20' CONTAINER	300 boxes 600.000 cases			300 boxes 540.000 cases	300 boxes 450.000 cases	300 boxes 450.000 cases	300 boxes 600.000 cases	300 boxes 540.000 cases	300 boxes 720.000 cases		300 boxes 750.000 cases	
40' CONTAINER HC	660 boxes 1.320 million cases			660 boxes 1.188 million cases	660 boxes 990,000 cases	660 boxes 990,000 cases	660 boxes 1.320 million cases	660 boxes 1.118 million cases	660 boxes 1.584 million cases		660 boxes 1.640 million cases	





# PRIMERS

MAXAM Outdoors has devoted great efforts in the research and development of our 209 type primers.

No primer in the market can compete with MAXAM's primers in terms of reliability and sensitivity. This is the fruit of our continuous inspection of all primers before and during the assembly process.

- 100% of our primer units are tested for exact doses of explosive mixture and perfect positioning of inner components to obtain extreme levels of regularity.
- Primer explosive mixture with a high rate of compaction for increased security during manipulation.
- Chemical blend developed in house for an explosive mixture which delivers an optimal burn of many different powders without leaving residues.
- Unique protective membrane to avoid undesirable ignition of powder.

All primers coming off the production line are subject to extensive inspections to ensure that the perfect quantities of explosive mixture are distributed as well as the faultless arrangement of all inner components. The finished product is then tested for sensitivity, power, temperature and pressure.

Furthermore, the composition of the explosive mixture has been fine-tuned in MAXAM's laboratories to perform optimally in various climatic conditions with many powders available on the market and without leaving residues after shooting.

Finally, our primers benefit from the highest homogeneity rates of the explosive mixture which results in a safer, more stable product and guarantees a fully-proved regularity in the ignition of all primers.

The majority of the components that make up the primer are also manufactured by MAXAM so we can assure the quality control in all the steps involved in the production process.

Packaging	Units
TRAY	600
BOX	16.800
PALLET	537.600
BOXES PER PALLET	32
TRUCK (length: 13.5m, height: 2.5m, width: 2.45m)	Approx. 14 million units
20' CONTAINER	Approx. 5.4 million units
40' CONTAINER HC	Approx. 11.8 million units

**Classification** 1.4S, UN0044





# WADS

MAXAM Outdoors offers four type of wads which cover most of the needs of 12 gauge cartridges. Our wads are designed to obtain the best results in any shooting discipline achieving the following set of qualities:

- Softens recoil.
- Ideal point of collapse.
- Guarantees sealing of gases for optimal compression rate.

Type	A28	A24	A21	A19
Calibre	12	12	12	12
Load (g)	21-28	24-32	32-34	34-36
Case Length (mm)	67-70	67-70	67-70	70
Wad Length (mm)	43	44	40	37
overpowder -cup length (mm)	28	25	21	19
				

Packaging				
BOX	4.000	4.000	4.000	4.000
PALLET	120.000	120.000	120.000	120.000



# QUALITY

We continue to strive for quality and excellence in our products and global solutions: from conceptualization, design, development and manufacturing up to its final treatment and use. We know that quality is the element that keeps us competitive, promotes growth and sustains our success in the business while we provide value generation for our clients.

We have a clear vocation for continuous improvement in the effectiveness and efficiency of our processes and systems. To do this, our teams of professionals, supported by our own R&D team, work continuously with customers, suppliers and distributors throughout the entire value chain.

## **Quality Control Measures:**

- Tube extrusion: Improvements in mechanical properties, thickness and regularity.
- Cases cameras: Sensors have been installed to detect the most common defects during the manufacturing process. The camera can detect different colours and reject any inconsistencies.

## **Quality Certifications/Standards:**

- ISO 9001:2015
- ISO 18001:2015
- ISO 14001:2015
- ISO 50001:2011
- OHSAS
- CIP
- SAAMI







# HEALTH AND SAFETY

At MAXAM, Safety is one of our fundamental values and is a matter for all of us. We are committed to Zero-Harm to our employees, clients, partners and the communities in which we operate. We voluntarily comply to our highest global standards and are continually committed to maintaining a safety culture throughout the organisation.

We believe that each and every one of us, from top management to team managers, as well as the employees and partners at any one of our facilities can make a difference. That's why, at MAXAM, safety concerns us all.

Our goals in Safety:

1

IMPROVE  
SAFETY  
CULTURE

2

PROGRES TOWARDS  
THE GOAL OF ZERO  
ACCIDENTS

3

KEEP CRITICAL  
PROCESSES  
UNDER CONTROL





# MAXAM GLOBAL LOGISTICS OPERATOR

For our customer shipments MAXAM Outdoors uses its partner MAXAM Global Logistics Operator (GLO) to move your products all over the world. This offers our customers the following advantages:

- Highly Skilled Professionals.
- Cutting-edge equipment and systems.
- Successful collaboration with competent authorities.
- Expertise in most complex challenges, focusing on specific areas and activities.
- Multimodal Logistics Operator: worldwide sea, air and ground.
- Comprehensive security measures: procedures, tracking control, etc.
- Cost-effective customized solutions design to meet your needs both now and in the future.
- Absolute confidentiality.
- Our field of expertise include dangerous goods, specifically:
  - Explosives (Class 1)
  - Ammonium Nitrate (Class 5.1)
  - All ADR products







# RECOMMENDATIONS FOR SAFE LOADING

- It is always mandatory to use Personal Protection Equipment (PPE) during loading: boots, jacket, gloves and helmet
- Ensure proper positioning of the vehicle and the necessary signage:
  - Triangles
  - Wedges
- Request the loading/stowage plan from the forklift driver
  - Follow the recommendations of the forklift driver during loading and stowage in the vehicle
- Verify that there are no incompatible loads on the loading documentation or in the vehicles
- Stowage elements used for these shipments:
  - Lashing slings/straps
  - Telescopic rods
  - Polystyrene panels and Airbags
  - Pallets, cordstraps (plastic bands)
- Check the condition of the pallets:
  - No damage (crushed, broken, etc.)
  - Properly shrink-wrapped
  - Packages within the surface of the pallet
  - Visible labels
  - Do not leave gaps and if necessary fill them with pallets or other items
  - Secure the goods with safety devices
- On finishing the loading process:
  - Secure the last pallets with safety devices
  - Ensure safe loading for secure closure of the vehicle
  - Check the placement of the Orange label and that the label plates are appropriate for the goods.







# MAXAM COMPONENTS ORDER PLATFORM

In order to speed up the order process MAXAM Outdoors offers our customers an on-line platform to allow them to place their own orders in an easy and efficient manner.

This gives our customers more control of their orders and they can copy previous orders if needed.

Please contact your salesperson to obtain a user id and password.

<http://outdoorsorders.maxam.net/>

The screenshot shows the login interface for the MAXAM Outdoors platform. At the top left is the MAXAM logo with the tagline "Beyond Performance". To the right of the logo is a language selection dropdown menu currently set to "English". The main heading is "ORDERS OUTDOORS" with the subtitle "Customer access" below it. There are two input fields: "User:" and "Password:". Below these fields is a red "ACCESS" button. A link for "Forgot your password?" is located below the button. At the bottom left, the copyright notice reads "Copyright © 2014 MaxamCorp Holding, S.L.", and at the bottom right, there is a "Contact MAXAM" link.



# MAXAM STRATEGIC MEMBERSHIPS

MAXAM Outdoors is a member of a number of associations from our sector whose function is to promote hunting and shooting in various countries around the world.

For example, MAXAM is a member of AFEMS which is the Association of European Manufacturers of Sporting Ammunition. AFEMS is a Europe-wide association which today includes 52 member companies and 8 affiliates from 23 European countries. It represents a network of manufacturers and distributors of ammunition, components, clay targets and machinery, each boasting vast experience and a long history in the industry.

Strengthening dialogue and cooperation among its members, and representing their interests to the relevant decision-making bodies, are therefore clear priorities for AFEMS.

For more information on AFEMS go to: [www.afems.org](http://www.afems.org)

MAXAM is also a member of the Asociación Armera (Firearms Association) which is a Spanish organization whose objective is to defend the sector's interests liaising with the Department of Home Affairs, the Ministry of Science and Technology, the Secretariat of Trade and the Firearms Inspection.

The National Rifle Association of America (NRA) is an American nonprofit organization that advocates for gun rights. Founded in 1871, the group has informed its members about firearm-related legislation since 1934, and it has directly lobbied for and against firearms legislation since 1975.





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