MAXAM Powders

MAXAM
Outdoors

MAXAM reloading gun powders for rifled bore barrels

Introduction

MAXAM smokeless powders are well-known and have been appreciated for many years by hunters and shooters worldwide for their cartridge reloading needs.

By publishing these ballistics tables and annexes, MAXAM continues to contribute to those who choose to use our smokeless reloading powders for rifled bore cartridges.

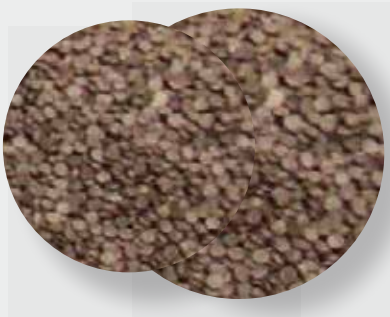
For the small private reloaders, MAXAM has now introduced containers with 500g.

Key features

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 111).

The small particle size makes them easy to dispense.
Gelatinisation is done with a solvent that evaporates similar to CSB, PSB+, SSB+, and GSB 146, which are all single based.
For GDB 111, which is a double base powder, nitroglycerine is also used as a fixed solvent.

Combustion is standard and waste left in the barrel, with the correct dose, is practically zero.
The main physical and ballistic characteristics are summarised in the following table using 12 gauge as the standard size reference.



Powder	Calorific Value (cal/g)	Density (g/l)	Dose (g power/g Pb)	Velocity (m/s)	Pressure (bar)
CSB 6	990	470	1.25 x 24	410	600
CSB 5	990	490	1.40 X 28	400	650
PSB+5	990	475	1.38 X 28	400	600
CSB 4	990	490	1.50 X 28	411	577
CSB 3	950	510	1.65 X 30	410	600
PSB+3	970	500	1.65 X 32	410	600
CSB 1/1M	940	520	1.75 X 32	406	533
PSB+1	970	525	1.75 X 32	395	478
CSB 2	930	540	1.85 X 36	393	575
PSB+2	970	550	1.85 X 36	393	580
PSB+2SP	960	560	2.00 X 38	395	700
SSB+150	940	550	2.05 X 32 steel	416	668

The tests were performed in manometric barrels according to CIP standards, equipped with a piezoelectric pressure gauge and an initial velocity gauge.

The minimum and maximum dose has been adjusted to obtain a pressure of between 75% and 95% of the CIP limit.

We recommend that you start reloading by reducing the dose by 10% of the minimum value.

Exceeding maximum values will lead to increased pressure above the safety limit.

Generally, as the shell size increases, the dose increases.

With the same primer the ignition is greater when the shell and reload capacity are reduced.

Selected components have been used but it is very important to remember that different components along with barrels with different diameters or different lengths can generate significant variations in pressure and speed. Also this can happen if guns are used instead of test barrels.

The 9x19 calibre dose can be adapted to the 9x21 calibre, but not vice versa.
At an equal maximum height and other conditions, the trajectory of the bullet before reaching the rifled barrel is lower for the 9x19 calibre and this implies that equal dose powder start at a lower volume compared to 9x21 calibre creating higher pressure.

In general, pressure increases depending on:

1. The primer's power.
2. The powder's dose and the shot weight.
3. The sectional density of the powder.
4. The charge density and depth of the bullet in the shell.
5. The force exerted on the diameter of the bullet.
6. The sectional density of the bullet.
7. The ratio between the diameter of the bullet and the diameter of the bore's rifled gaps.
8. The ratio between the bore's diameter and the hollow sections of the rifled barrel.
9. The relationship between the length of the shell inside the rifled barrel and its diameter.
10. The hardness of the bullet's material and the friction between the bullet and the bore's steel.

Increasing powder volume, because of a longer shell, does not always reduce pressure. It makes a bigger difference if the bullet's path is reduced before arriving at the grooved barrel.

As a general rule, speed varies based on pressure increasing as the parameters indicated in points 1 to 5 increases and decreasing as the parameters increase as in points 6 to 10.

With all other conditions equal and with minimal deviations (within 5%), pressure percent increases in absolute values as well as the percentage increase in bullet mass and twice the percentage increase of powder.

Inversely, pressure lowers as shell volume increases along with powder. If the powder dosage were increased, there is a similar absolute value but in an inverse direction in relation to the percentage increase of the powder volume available in the shell.

Inversely, if you increase the shot weight, speed decreases. For example, if the powder dose and the bullet weight both increase more than 5% there is practically no variation in speed; whereas, the pressure would increase more than 15%. If the volume of the shell is also reduced by 5%, the pressure would increase by more than 20%. This would be the case if one were to change to a lighter shot to a heavier one of the same kind; for example, a 9x21 calibre using a 130 copper grain bullet instead of 125 zinc-plated grain, at equal total height of the cartridge, carries a mass increase of 4%.

The increased pressure, if the powder dose is not at a maximum level, will also result in at least 7% but the speed will be reduced to less than 4% by the higher load density.

If you want to leave the pressure unchanged, you have to reduce the powder dose to at least 4%, leaving the load density almost unchanged with a reduced speed of at least 7.5%.

IIt must be pointed out that these values are suggestions: in the case of large variations, the effect on the pressure will be much greater with could put the user in serious danger. For example, reducing the shell's volume available for the powder will result in a non-linear, hyperbolic dependence. For the same gauge, using a heavier bullet must involve a significant reduction in powder dose with a consequent reduction in speed. Alternatively, If you want to maintain speed, you will need to use a slower burning powder. In addition to increasing the powder's temperature so does the pressure and speed; the effect is double the energy content of the propellant and the burning rate.

The opposite happens when the temperature is reduced.

Any variation to the loading dose from the following table should be tested in a manometric barrel by skilled operators.

VIVACITY TABLE

Vihtavuori	Maxam	Rex	Vectan	Accurate	Lovex	Winchester	Hodgdon	Alliant	IMR
N310	CSB 6	Rex 24	A24 Ba 10	Nitro 100	S013	WST			
							Titewad		
N312				Solo 1000	S015	W 231	HP 38	Bullseye	Trail Boss
							Titegroup		
N318	CSB5	Rex 28	AS	AA#2	D032	W 452	Clays	Red Dot	HiSkor 700X
	PSB+5								
N320	CSB4				S030	WSL	Intl. Clays	Am. Select	
N324	CSB3	Rex 32	A1	Solo 1250		W 473	Univ. Clays	Promo	PB
	PSB+3								
							Green Dot		
N330	CSB1		A1 Sp		S035	WSF			SR 7625
	PSB+1		Ba 9					Unique	
N340	CSB2	Rex 36	A6 Sp	AA#5	D036	W 540	HS 6	Power Pistol	
	PSB+2								
	PSB+2SP								
N350			SP 8			WAP	Longshot	Herco	SR 4756
	SSB+150								
3N37			A0	AA#7	D037.1	W 571	HS 7	Blue Dot	HiSkor 800X
			SP 2						
	GSB146								

Legend Bullet: L: Lead C: Copper J: Armoured
RN: Round-end TC: Truncated cone FP: Flat-head

Continuation

VIVACITY TABLE

Vihtavuori	Maxam	Rex	Vectan	Accurate	Lovex	Winchester	Hodgdon	Alliant	IMR
N110			SP3	AA#9	D037.2	W296	H110	2400	4227
				1680	D063	W680			
				2015	S060				
				2230	D073.4				
N120			T2000						4198
N130		200	SP10	2460	D073.5	W748	BL©2		
N133		201	T3000				H335		
	GDB111								
N135			SP7	2520	D073.6				3031
		202		4064	S062	W760			4064
N140				2700	S065		H380		4895
N150		203	SP11	4350	S070	WMR	H450		4350
N160		204	T7000			W785			4831
N165									7828
N560		MRP	T8000	3100	S071				

Legend Bullet: L: Lead C: Copper J: Armoured
RN: Round-end TC: Truncated cone FP: Flat-head

General warnings

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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.

Safety advice

Prior to any loading operation, always be in control of the instruments in use (balance, dispenser, etc.). Always keep the loading components in their original packaging using only the necessary amount needed.
Do not smoke, eat or drink during the loading operation.
Wear eye protection. Maintain maximum concentration during operation.

NEVER use components which you are not sure of their origin or identity.
At the end of the loading operation carefully clean your work area using anti-static tools and properly wash hands thoroughly.

Any reloading component, especially the loaded cartridge, must be maintained under controlled temperature and relative humidity conditions as close as possible to 21°C or 69.8°F and 60% respectively.

LOADING TABLES

LOADING TABLES

Calibre: 32 ACP / 7.65 x 17 / 7.65 Browning

Height shotshell case mm 17.20 Volume shotshell case cc 0.71

Maximum height of charged cartridge 25.00 mm

Diameter mm 7.85 Section cm^2 0.484

LIMIT Pmax CIP 1,600 bar

75%: Pmax. CIP 1,200 95% Pmax. CIP 1,520

Loading Data 87 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	23.60	1.5	235	1146	1.7	266	1511
CSB 5	Fiocchi	Fiocchi Small Pistol	24.30	1.7	235	1102	1.9	263	1410
CSB 4	Fiocchi	Fiocchi Small Pistol	24.30	1.8	243	1083	2.0	270	1369
CSB 3	Fiocchi	Fiocchi Small Pistol	24.30	2.1	249	1206	2.3	273	1483
CSB 1M	Fiocchi	Fiocchi Small Pistol	24.30	2.4	259	1166	2.7	291	1534
CSB 2	Fiocchi	Fiocchi Small Pistol	24.30	3.0	264	1141	3.3	291	1439

Continuation 32 ACP / 7.65 x 17 / 7.65 Browning

Loading Data 80 CRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. m	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	24.70	1.7	260	1152	1.9	290	1472
PSB+5	Fiocchi	Fiocchi Small Pistol	24.70	1.9	255	1089	2.2	295	1510
PSB+3	Fiocchi	Fiocchi Small Pistol	24.70	2.3	283	1200	2.5	307	1452
PSB+1	Fiocchi	Fiocchi Small Pistol	24.70	2.3	282	1197	2.5	307	1448

Loading Data 79 CRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	24.30	1.8	266	1197	2.0	296	1511
CSB 4	Fiocchi	Fiocchi Small Pistol	24.30	2.1	261	1191	2.3	286	1462
CSB 3	Fiocchi	Fiocchi Small Pistol	24.30	2.1	266	1151	2.3	291	1413
CSB 1M	Fiocchi	Fiocchi Small Pistol	24.30	2.4	277	1111	2.7	312	1458
CSB 2	Fiocchi	Fiocchi Small Pistol	24.30	3.1	292	1168	3.4	320	1461

Loading Data 78 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+5	Fiocchi	Fiocchi Small Pistol	23.60	1.8	271	1109	2.0	301	1404
PSB+1	Fiocchi	Fiocchi Small Pistol	23.60	2.1	282	1083	2.4	323	1470
PSB+3	Fiocchi	Fiocchi Small Pistol	23.60	2.2	295	1154	2.4	322	1410

Continuation 32 ACP / 7.65 x 17 / 7.65 Browning

Loading Data 74 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	24.70	1.8	276	1139	2.0	306	1437
CSB 4	Fiocchi	Fiocchi Small Pistol	24.70	1.9	284	1111	2.1	314	1387
CSB 3	Fiocchi	Fiocchi Small Pistol	24.70	2.2	288	1215	2.4	315	1478
CSB 1M	Fiocchi	Fiocchi Small Pistol	24.70	2.5	298	1157	2.8	335	1504
CSB 2	Fiocchi	Fiocchi Small Pistol	24.70	3.2	312	1192	3.5	341	1481

Loading Data 73 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	25.00	1.9	280	1178	2.1	309	1470
PSB+5	Fiocchi	Fiocchi Small Pistol	25.00	2.2	295	1196	2.4	322	1454
PSB+3	Fiocchi	Fiocchi Small Pistol	25.00	2.5	304	1161	2.8	340	1505
PSB+1	Fiocchi	Fiocchi Small Pistol	25.00	2.6	301	1136	2.9	335	1462

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LOADING TABLES

Calibre: 32 S & WL

Height shotshell case mm 23.40 Volume shotshell case cc 0.960

Maximum height of charged cartridge 32.51 mm

Diameter mm 8.00 Section cm^2 0.503

LIMIT Pmax CIP 1,550 bar

75%: Pmax. CIP 1,163 95% Pmax. CIP 1,473

Loading Data 100 LWC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	23.20	1.0	180	957	1.2	216	1436
PSB+5	Fiocchi	Fiocchi Small Pistol	23.20	1.3	209	1012	1.5	241	1407
PSB+3	Fiocchi	Fiocchi Small Pistol	23.20	1.5	229	1154	1.6	245	1343
PSB+1	Fiocchi	Fiocchi Small Pistol	23.20	1.6	231	1162	1.7	246	1342

Continuation Calibre: 32 S & WL

Loading Data 71 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	30.00	2.9	330	1161	3.2	364	1447
PSB+5	Fiocchi	Fiocchi Small Pistol	30.00	3.2	339	1155	3.5	371	1415
PSB+3	Fiocchi	Fiocchi Small Pistol	30.00	3.5	355	1162	3.8	386	1403
PSB+1	Fiocchi	Fiocchi Small Pistol	30.00	3.7	362	1141	4.1	401	1447

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LOADING TABLES

Calibre: 30 Luger / 7.65 x 22 / 7.65 PB

Height shotshell case mm 21.59 Volume shotshell case cc 1.09

Maximum height of charged cartridge 29.85 mm

Diameter mm 7.85 Section cm^2 0.484

LIMIT Pmax CIP 2,350 bar

75%: Pmax. CIP 1,763 95% Pmax. CIP 2,233

Loading Data 110 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	29.85	2.7	278	1726	2.9	309	2184
PSB+5	Fiocchi	Fiocchi Small Pistol	29.85	3.0	286	1633	3.3	325	2163
PSB+3	Fiocchi	Fiocchi Small Pistol	29.85	3.4	303	1689	3.7	339	2177
PSB+1	Fiocchi	Fiocchi Small Pistol	29.85	3.4	300	1686	3.7	336	2174
PSB+2	Fiocchi	Fiocchi Small Pistol	29.85	3.6	309	1662	4.0	353	2245
PSB+2SP	Fiocchi	Fiocchi Small Pistol	29.85	3.7	318	1704	4.0	353	2162
SSB+150	Fiocchi	Fiocchi Small Pistol	29.85	4.2	324	1651	4.7	371	2268

Continuation Calibre: 30 Luger / 7.65 x 22 / 7.65 PB

Loading Data 98 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	27.70	3.0	268	1688	3.3	330	2185
CSB 3	Fiocchi	Fiocchi Small Pistol	27.70	3.3	295	1756	3.6	321	2146
CSB 4	Fiocchi	Fiocchi Small Pistol	27.70	3.4	300	1679	3.8	334	2160
CSB 1M	Fiocchi	Fiocchi Small Pistol	27.70	3.7	296	1674	4.1	328	2132
CSB 2	Fiocchi	Fiocchi Small Pistol	27.70	4.3	302	1735	4.7	330	2153

Loading Data 104 CRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	27.60	3.0	272	1697	3.3	299	2106
CSB 4	Fiocchi	Fiocchi Small Pistol	27.60	3.3	278	1668	3.7	312	2172
CSB 3	Fiocchi	Fiocchi Small Pistol	27.60	3.3	285	1740	3.6	311	2126
CSB 1M	Fiocchi	Fiocchi Small Pistol	27.60	3.9	300	1715	4.3	331	2163
CSB 2	Fiocchi	Fiocchi Small Pistol	27.60	4.3	292	1718	4.7	319	2132

Continuation Calibre: 30 Luger / 7.65 x 22 / 7.65 PB

Loading Data 93 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	28.40	3.1	311	1718	3.5	351	2254
PSB+5	Fiocchi	Fiocchi Small Pistol	28.40	3.6	330	1700	4.0	366	2165
PSB+3	Fiocchi	Fiocchi Small Pistol	28.40	4.0	340	1671	4.5	383	2202
PSB+1	Fiocchi	Fiocchi Small Pistol	28.40	4.2	346	1721	4.7	388	2245
PSB+2	Fiocchi	Fiocchi Small Pistol	28.40	4.4	351	1694	4.9	392	2189
PSB+2SP	Fiocchi	Fiocchi Small Pistol	28.40	4.4	350	1648	4.9	390	2130
SSB+150	Fiocchi	Fiocchi Small Pistol	28.40	5.0	368	1678	5.6	413	2217

Loading Data 94 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	27.80	3.1	311	1726	3.4	341	2127
CSB 3	Fiocchi	Fiocchi Small Pistol	27.80	3.4	325	1757	3.7	354	2131
CSB 4	Fiocchi	Fiocchi Small Pistol	27.80	3.6	330	1671	4.0	367	2132
CSB 1M	Fiocchi	Fiocchi Small Pistol	27.80	3.9	334	1762	4.3	368	2215
CSB 2	Fiocchi	Fiocchi Small Pistol	27.80	4.5	338	1792	4.9	369	2200

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LOADING TABLES

Calibre: 30 TOKAREV

Height shotshell case mm 25 Volume shotshell case cc 1.212

Maximum height of charged cartridge 35.20 mm

Diameter mm 7.85 Section cm^2 0.484

LIMIT Pmax CIP 2,500 bar

75%: Pmax. CIP 1,875 95% Pmax. CIP 2,375

Loading Data 100 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	SellierBellot	Magtech Small Pistol	31.90	3.6	316	1806	4.0	351	2289
PSB+5	SellierBellot	Magtech Small Pistol	31.90	4.2	339	1840	4.6	371	2269
PSB+3	SellierBellot	Magtech Small Pistol	31.90	4.7	351	1806	5.2	389	2291
PSB+1	SellierBellot	Magtech Small Pistol	31.90	4.9	352	1810	5.4	389	2278
PSB+2SP	SellierBellot	Magtech Small Pistol	31.90	5.2	360	1811	5.8	402	2353
PSB+2	SellierBellot	Magtech Small Pistol	31.90	5.3	364	1857	5.8	398	2307
SSB+150	SellierBellot	Magtech Small Pistol	31.90	6.2	392	1870	6.7	424	2270

Continuation Calibre: 30 TOKAREV

Loading Data 85 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	SellierBellot	Magtech Small Pistol	33.00	4.0	349	1841	4.4	385	2284
PSB+5	SellierBellot	Magtech Small Pistol	33.00	4.6	373	1866	5.1	414	2370
PSB+3	SellierBellot	Magtech Small Pistol	33.00	5.1	386	1817	5.7	432	2363
PSB+1	SellierBellot	Magtech Small Pistol	33.00	5.4	397	1856	5.9	434	2292
PSB+2	SellierBellot	Magtech Small Pistol	33.00	5.8	407	1839	6.4	450	2334
PSB+2SP	SellierBellot	Magtech Small Pistol	33.00	6.1	421	1867	6.7	463	2349

Loading Data 82 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+2	SellierBellot	Magtech Small Pistol	31.70	5.8	424	1873	6.3	461	2298

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Any reloading component, especially the loaded cartridge, must be maintained under controlled temperature and relative humidity conditions as close as possible to 21°C or 69.8°F and 60% respectively.

LOADING TABLES

Calibre: 380 ACP / 9 x 17 / 9 Browning

Height shotshell case mm 17.33 Volume shotshell case cc 0.87

Maximum height of charged cartridge 25.00 mm

Diameter mm 9.04 Section cm^2 0.642

LIMIT Pmax CIP 1,350 bar

75%: Pmax. CIP 1,013 bar 95% Pmax. CIP 1,283

Loading Data 108 CRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	25.00	2.0	226	936	2.3	260	1272
CSB 5	Fiocchi	Fiocchi Small Pistol	24.70	2.1	208	999	2.3	228	1221
CSB 3	Fiocchi	Fiocchi Small Pistol	24.70	2.3	221	972	2.6	250	1279
CSB 4	Fiocchi	Fiocchi Small Pistol	24.70	2.4	238	954	2.7	268	1244
CSB 1M	Fiocchi	Fiocchi Small Pistol	24.70	2.9	242	1027	3.2	267	1290
CSB 2	Fiocchi	Fiocchi Small Pistol	24.70	3.0	223	1037	3.3	245	1294

Continuation 380 ACP / 9 x 17 / 9 Browning

Loading Data 93 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+5	Fiocchi	Magtech Small Pistol	23.50	2.4	302	976	2.7	340	1277
PSB+1	Fiocchi	Magtech Small Pistol	23.50	2.8	312	977	3.1	346	1239
PSB+3	Fiocchi	Magtech Small Pistol	23.50	3.1	337	982	3.4	370	1224

Loading Data 93 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	25.00	2.6	272	999	2.9	303	1275
PSB+5	Fiocchi	Magtech Small Pistol	24.50	2.6	279	953	2.9	311	1218
CSB 5	Fiocchi	Fiocchi Small Pistol	25.00	2.7	255	941	3.0	283	1192
CSB 4	Fiocchi	Fiocchi Small Pistol	25.00	2.8	253	971	3.1	281	1222
CSB 3	Fiocchi	Fiocchi Small Pistol	25.00	3.0	275	949	3.4	311	1263
PSB+3	Fiocchi	Magtech Small Pistol	24.50	3.2	307	1011	3.5	336	1244
PSB+1	Fiocchi	Magtech Small Pistol	24.50	3.2	300	992	3.5	328	1221
CSB 1M	Fiocchi	Fiocchi Small Pistol	25.00	3.6	302	1050	3.9	327	1267
CSB 2	Fiocchi	Fiocchi Small Pistol	25.00	4.0	283	1081	4.3	304	1285

Continuation 380 ACP / 9 x 17 / 9 Browning

Loading Data 95 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	24.30	2.6	273	959	2.9	305	1231
CSB 4	Fiocchi	Fiocchi Small Pistol	24.30	2.7	272	995	3.0	302	1267
CSB 3	Fiocchi	Fiocchi Small Pistol	24.30	2.9	296	980	3.2	326	1231
CSB 1M	Fiocchi	Fiocchi Small Pistol	24.30	3.4	318	1034	3.7	346	1266
CSB 2	Fiocchi	Fiocchi Small Pistol	24.30	3.7	291	1016	4.0	315	1229

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LOADING TABLES

Calibre: 9 Luger / 9 x 19 / 9 PB

Height shotshell case mm 19.15 Volume shotshell case cc 1.03

Maximum height of charged cartridge 29.69 mm

Diameter mm 9.03 Section cm^2 0.642

LIMIT Pmax CIP 2,350 bar

75%: Pmax. CIP 1,763 95% Pmax. CIP 2,233

Loading Data 124 CRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	26.50	2.7	263	1678	3.0	293	2134
CSB 5	Fiocchi	Fiocchi Small Pistol	29.00	3.0	242	1635	3.4	274	2165
CSB 3	Fiocchi	Fiocchi Small Pistol	29.00	3.0	257	1660	3.4	292	2198
PSB+5	Fiocchi	Fiocchi Small Pistol	27.70	3.1	284	1697	3.4	311	2102
CSB 4	Fiocchi	Fiocchi Small Pistol	29.00	3.2	278	1713	3.5	304	2097
CSB 1M	Fiocchi	Fiocchi Small Pistol	29.00	3.6	282	1739	4.0	314	2215
PSB+3	Fiocchi	Fiocchi Small Pistol	27.70	3.7	314	1741	4.1	348	2219
PSB+1	Fiocchi	Fiocchi Small Pistol	27.70	3.7	309	1705	4.1	342	2173
PSB+2	Fiocchi	Fiocchi Small Pistol	27.70	4.0	310	1739	4.4	342	2186
CSB 2	Fiocchi	Fiocchi Small Pistol	29.00	4.3	292	1761	4.7	319	2175
PSB+2SP	Fiocchi	Fiocchi Small Pistol	27.00	4.4	326	1760	4.8	355	2188

Continuation Calibre: 9 Luger / 9 x 19 / 9 PB

Loading Data 125 CRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	26.30	2.8	279	1748	3.1	309	2210
CSB 5	Fiocchi	Fiocchi Small Pistol	29.00	3.1	275	1671	3.5	310	2196
CSB 3	Fiocchi	Fiocchi Small Pistol	29.00	3.1	292	1696	3.5	330	2230
CSB 4	Fiocchi	Fiocchi Small Pistol	29.00	3.4	297	1766	3.7	323	2142
PSB+2	Fiocchi	Fiocchi Small Pistol	26.70	3.4	299	1686	3.8	335	2195
PSB+2SP	Fiocchi	Fiocchi Small Pistol	26.50	3.5	303	1668	3.9	360	2155
CSB 1M	Fiocchi	Fiocchi Small Pistol	29.00	3.7	319	1759	4.1	354	2230
CSB 2	Fiocchi	Fiocchi Small Pistol	29.00	4.4	328	1768	4.8	358	2176

Loading Data 123 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 3	Fiocchi	Fiocchi Small Pistol	29.00	2.8	244	1593	3.2	278	2148
CSB 5	Fiocchi	Fiocchi Small Pistol	29.00	2.9	237	1696	3.2	262	2116
CSB 4	Fiocchi	Fiocchi Small Pistol	29.00	3.1	250	1691	3.4	274	2085
CSB 1M	Fiocchi	Fiocchi Small Pistol	29.00	3.4	271	1712	3.8	303	2211
CSB 2	Fiocchi	Fiocchi Small Pistol	29.00	4.1	282	1773	4.5	310	2212

Continuation Calibre: 9 Luger / 9 x 19 / 9 PB

Loading Data 115 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+5	Fiocchi	Fiocchi Small Pistol	28.00	3.4	308	1768	3.7	336	2155
PSB+3	Fiocchi	Fiocchi Small Pistol	28.00	3.9	326	1782	4.2	351	2126
PSB+1	Fiocchi	Fiocchi Small Pistol	28.00	4.0	327	1711	4.4	360	2152
PSB+2	Fiocchi	Fiocchi Small Pistol	28.00	4.3	336	1771	4.7	367	2201

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LOADING TABLES

Calibre: 9 IMI / 9 x 21 / 9 ITA

Height shotshell case mm 21.15 Volume shotshell case cc 1.13

Maximum height of charged cartridge 29.75 mm

Diameter mm 9.03 Section cm^2 0.640

LIMIT Pmax CIP 2,350 bar

75%: Pmax. CIP 1,763 95% Pmax. CIP 2,233

Loading Data 146 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	29.00	0.0	0	0	2.8	267	2146

Loading Data 125 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	29.40	3.2	276	1715	3.5	302	2100
CSB 4	Fiocchi	Fiocchi Small Pistol	29.40	3.6	294	1666	4.0	326	2124
CSB 3	Fiocchi	Fiocchi Small Pistol	29.40	3.6	297	1740	4.0	330	2219
CSB 1M	Fiocchi	Fiocchi Small Pistol	29.40	4.2	299	1753	4.6	327	2175
CSB 2	Fiocchi	Fiocchi Small Pistol	29.40	5.0	326	1759	5.5	359	2226
PSB+2SP	Fiocchi	Fiocchi Small Pistol	29.00	5.2	351	1752	5.7	385	2208

Continuation 9 IMI / 9 x 21 / 9 ITA

Loading Data 123 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	29.70	3.2	278	1764	3.5	305	2161
CSB 3	Fiocchi	Fiocchi Small Pistol	29.70	3.5	291	1680	3.9	325	2155
CSB 4	Fiocchi	Fiocchi Small Pistol	29.70	3.6	296	1715	4.0	329	2188
PSB+5	Fiocchi	Fiocchi Small Pistol	29.50	3.8	303	1708	4.2	335	2158
CSB 1M	Fiocchi	Fiocchi Small Pistol	29.70	4.3	285	1787	4.7	312	2210
PSB+3	Fiocchi	Fiocchi Small Pistol	29.50	4.4	329	1770	4.8	359	2181
PSB+1	Fiocchi	Fiocchi Small Pistol	29.50	4.5	329	1772	4.9	358	2177
PSB+2	Fiocchi	Fiocchi Small Pistol	29.50	4.8	334	1779	5.2	362	2163
CSB 2	Fiocchi	Fiocchi Small Pistol	29.70	4.9	323	1729	5.4	356	2197
PSB+2SP	Fiocchi	Fiocchi Small Pistol	29.50	4.9	331	1739	5.4	365	2213
SSB+150	Fiocchi	Fiocchi Small Pistol	29.50	5.5	349	1709	6.0	381	2136

Continuation 9 IMI / 9 x 21 / 9 ITA

Loading Data 124 CRN

Powder	Shotshell Case	Primer	C.O.L. mm	Initial Load Grs	Initial Load M/S	Initial Load Bar	Maximum Load Grs	Maximum Load M/S	Maximum Load Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	29.40	3.3	283	1746	3.6	309	2127
CSB 4	Fiocchi	Fiocchi Small Pistol	29.40	3.5	286	1656	3.9	319	2123
CSB 3	Fiocchi	Fiocchi Small Pistol	29.40	3.7	303	1760	4.1	336	2231
PSB+5	Fiocchi	Fiocchi Small Pistol	29.00	3.9	317	1734	4.3	350	2181
CSB 1M	Fiocchi	Fiocchi Small Pistol	29.40	4.2	320	1779	4.6	351	2206
PSB+3	Fiocchi	Fiocchi Small Pistol	29.00	4.4	333	1777	4.8	363	2191
PSB+1	Fiocchi	Fiocchi Small Pistol	29.00	4.5	332	1778	4.9	361	2185
PSB+2	Fiocchi	Fiocchi Small Pistol	29.00	4.8	334	1719	5.3	369	2195
CSB 2	Fiocchi	Fiocchi Small Pistol	29.40	5.1	331	1751	5.6	364	2208
PSB+2SP	Fiocchi	Fiocchi Small Pistol	29.50	5.4	347	1718	5.9	380	2145
SSB+150	Fiocchi	Fiocchi Small Pistol	29.00	5.5	350	1761	6.0	382	2199

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LOADING TABLES

Calibre: 38 SA

Height shotshell case mm 22.86 Volume shotshell case cc 1.22

Maximum height of charged cartridge 32.51 mm

Diameter mm 9.04 Section cm^2 0.642

LIMIT Pmax CIP 2,300 bar

75%: Pmax. CIP 1,725 95% Pmax. CIP 2,185

Loading Data 146 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Fiocchi Small Pistol	32.00	0.0	0	0	3.4	288	2078

Loading Data 125 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	32.00	4.1	329	1664	4.6	369	2166
CSB 4	Fiocchi	Fiocchi Small Pistol	32.00	4.3	313	1670	4.8	350	2153
CSB 3	Fiocchi	Fiocchi Small Pistol	32.00	4.4	325	1749	4.8	355	2138
CSB 1M	Fiocchi	Fiocchi Small Pistol	32.00	5.1	357	1737	5.6	392	2170
CSB 2	Fiocchi	Fiocchi Small Pistol	32.00	6.1	357	1760	6.6	386	2140

Continuation Calibre: 38 SA

Loading Data 123 JRN

Powder	Shotshell Case	Primer	C.O.L. mm	Initial Load			Maximum Load		
				Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	32.00	4.0	327	1715	4.4	360	2133
CSB 4	Fiocchi	Fiocchi Small Pistol	32.00	4.1	304	1634	4.6	341	2129
CSB 3	Fiocchi	Fiocchi Small Pistol	32.00	4.2	316	1715	4.6	346	2115
PSB+5	Fiocchi	Fiocchi Small Pistol	31.90	4.4	317	1698	4.9	353	2182
CSB 1M	Fiocchi	Fiocchi Small Pistol	32.00	4.9	350	1729	5.4	386	2178
PSB+3	Fiocchi	Fiocchi Small Pistol	31.90	5.0	336	1735	5.5	369	2177
PSB+1	Fiocchi	Fiocchi Small Pistol	31.90	5.3	346	1766	5.7	373	2106
PSB+2SP	Fiocchi	Fiocchi Small Pistol	32.00	5.5	348	1722	6.0	380	2129
PSB+2	Fiocchi	Fiocchi Small Pistol	31.90	5.6	350	1760	6.1	382	2169
CSB 2	Fiocchi	Fiocchi Small Pistol	32.00	5.9	352	1780	6.4	382	2178
SSB+150	Fiocchi	Fiocchi Small Pistol	31.90	6.8	373	1669	7.5	412	2152

Continuation Calibre: 38 SA

Loading Data 124 CRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	32.00	4.0	333	1702	4.4	367	2115
CSB 4	Fiocchi	Fiocchi Small Pistol	32.00	4.2	324	1665	4.7	363	2155
CSB 3	Fiocchi	Fiocchi Small Pistol	32.00	4.2	322	1701	4.6	353	2095
PSB+5	Fiocchi	Fiocchi Small Pistol	32.00	4.4	324	1706	4.8	354	2087
CSB 1M	Fiocchi	Fiocchi Small Pistol	32.00	4.8	324	1695	5.3	358	2139
PSB+3	Fiocchi	Fiocchi Small Pistol	32.00	4.9	340	1721	5.4	374	2164
PSB+1	Fiocchi	Fiocchi Small Pistol	32.00	5.5	354	1718	6.0	386	2120
PSB+2SP	Fiocchi	Fiocchi Small Pistol	31.90	5.8	352	1696	6.4	389	2158
CSB 2	Fiocchi	Fiocchi Small Pistol	32.00	5.9	359	1754	6.4	389	2141
PSB+2	Fiocchi	Fiocchi Small Pistol	32.00	6.0	361	1774	6.5	391	2162
SSB+150	Fiocchi	Fiocchi Small Pistol	32.00	6.6	362	1678	7.3	401	2167

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LOADING TABLES

Calibre: 38 SPL

Height shotshell case mm 29.34 Volume shotshell case cc 1.52

Maximum height of charged cartridge 39.37 mm

Diameter mm 9.12 Section cm^2 0.653

LIMIT Pmax CIP 1,500 bar

75%: Pmax. CIP 1,125 95% Pmax. CIP 1,425

Loading Data 159 CTC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	35.80	3.0	202	1136	3.3	222	1404
CSB 3	Fiocchi	Fiocchi Small Pistol	35.80	3.4	227	1092	3.8	254	1403
CSB 4	Fiocchi	Fiocchi Small Pistol	35.80	3.5	219	1059	3.9	244	1353
PSB+5	Fiocchi	Fiocchi Small Pistol	36.90	3.8	245	1077	4.3	277	1421
CSB 1M	Fiocchi	Fiocchi Small Pistol	35.80	3.9	234	1081	4.4	264	1428
CSB 2	Fiocchi	Fiocchi Small Pistol	35.80	4.3	246	1062	4.9	281	1443
PSB+3	Fiocchi	Fiocchi Small Pistol	36.90	4.5	261	1100	5.0	291	1400
PSB+1	Fiocchi	Fiocchi Small Pistol	36.90	4.6	261	1115	5.1	290	1414

Continuation: Calibre: 38 SPL

Loading Data 148 LWC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+5	Fiocchi	Fiocchi Small Pistol	33.10	3.3	248	1071	3.7	279	1391
PSB+1	Fiocchi	Fiocchi Small Pistol	33.10	4.0	265	1109	4.4	292	1389

Loading Data 143 JTC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	36.60	3.4	213	1087	3.8	238	1394
CSB 4	Fiocchi	Fiocchi Small Pistol	36.60	3.9	226	1092	4.3	249	1364
CSB 3	Fiocchi	Fiocchi Small Pistol	36.60	4.0	249	1139	4.4	275	1416
PSB+5	Fiocchi	Fiocchi Small Pistol	36.90	4.2	263	1073	4.7	295	1384
CSB 1M	Fiocchi	Fiocchi Small Pistol	36.60	4.6	262	1115	5.1	292	1420
PSB+3	Fiocchi	Fiocchi Small Pistol	36.90	4.9	284	1123	5.4	313	1408
CSB 2	Fiocchi	Fiocchi Small Pistol	36.60	5.0	267	1085	5.6	300	1422
PSB+1	Fiocchi	Fiocchi Small Pistol	36.90	5.1	282	1097	5.7	316	1424

Continuation: Calibre: 38 SPL

Loading Data 160 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	37.10	3.3	232	1126	3.6	253	1367
CSB 4	Fiocchi	Fiocchi Small Pistol	37.10	3.7	239	1074	4.1	265	1355
CSB 3	Fiocchi	Fiocchi Small Pistol	37.10	3.8	265	1123	4.2	293	1410
CSB 1M	Fiocchi	Fiocchi Small Pistol	37.10	4.4	280	1115	4.9	312	1433
CSB 2	Fiocchi	Fiocchi Small Pistol	37.10	4.8	287	1093	5.4	323	1445

Loading Data 158 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+5	Fiocchi	Fiocchi Small Pistol	37.00	3.7	261	1105	4.1	290	1388
PSB+1	Fiocchi	Fiocchi Small Pistol	37.00	4.2	264	1083	4.7	296	1397

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LOADING TABLES

Calibre: 357 MAG

Height shotshell case mm 32.77 Volume shotshell case cc 1.70

Maximum height of charged cartridge 40.39 mm

Diameter mm 9.12 Section cm^2 0.653

LIMIT Pmax CIP 3,000 bar

75%: Pmax. CIP 2,250 95% Pmax. CIP 2,850

Loading Data 159 CTC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	39.00	5.6	327	2173	6.2	362	2769
CSB 3	Fiocchi	Fiocchi Small Pistol	39.00	5.8	321	2195	6.4	355	2779
CSB 4	Fiocchi	Fiocchi Small Pistol	39.00	5.9	313	2253	6.5	345	2844
CSB 1M	Fiocchi	Fiocchi Small Pistol	39.00	6.2	338	2169	6.9	376	2816
PSB+3	Fiocchi	Fiocchi Small Pistol	39.50	6.9	338	2197	7.6	373	2780
PSB+1	Fiocchi	Fiocchi Small Pistol	39.50	7.2	342	2226	7.9	376	2796
PSB+2	Fiocchi	Fiocchi Small Pistol	39.50	7.6	351	2196	8.4	388	2819
PSB+2SP	Fiocchi	Fiocchi Small Pistol	39.50	7.7	355	2217	8.5	392	2840
CSB 2	Fiocchi	Fiocchi Small Pistol	39.00	8.3	372	2187	9.1	409	2796
SSB+150	Fiocchi	Fiocchi Small Pistol	39.50	8.4	364	2233	9.2	399	2822

Continuation Calibre: 357 MAG

Loading Data 160 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	40.39	5.4	308	2151	6.0	343	2750
CSB 3	Fiocchi	Fiocchi Small Pistol	40.39	5.6	303	2175	6.2	336	2762
CSB 4	Fiocchi	Fiocchi Small Pistol	40.39	6.0	305	2238	6.6	336	2808
CSB 1M	Fiocchi	Fiocchi Small Pistol	40.39	6.3	326	2193	7.0	357	2826
CSB 2	Fiocchi	Fiocchi Small Pistol	40.39	8.1	355	2173	8.9	391	2770

Loading Data 143 JTC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	40.30	6.3	353	2258	6.9	387	2807
CSB 3	Fiocchi	Fiocchi Small Pistol	40.30	6.5	346	2261	7.1	378	2797
CSB 4	Fiocchi	Fiocchi Small Pistol	40.30	6.6	329	2191	7.3	380	2796
PSB+3	Fiocchi	Fiocchi Small Pistol	40.10	7.3	363	2190	8.1	403	2826
CSB 1M	Fiocchi	Fiocchi Small Pistol	40.30	7.5	356	2197	8.3	395	2831
PSB+1	Fiocchi	Fiocchi Small Pistol	40.10	7.8	372	2241	8.5	406	2775
PSB+2	Fiocchi	Fiocchi Small Pistol	40.10	8.0	378	2232	8.8	416	2835
PSB+2SP	Fiocchi	Fiocchi Small Pistol	40.10	8.2	376	2195	9.0	413	2777
SSB+150	Fiocchi	Fiocchi Small Pistol	40.10	8.8	386	2221	9.6	422	2780
CSB 2	Fiocchi	Fiocchi Small Pistol	40.30	9.2	397	2200	10.0	432	2749

Continuation Calibre: 357 MAG

Loading Data 148 LWC

Powder	Shotshell Case	Primer	C.O.L. mm	Initial Load Grs	Initial Load M/S	Initial Load Bar	Maximum Load Grs	Maximum Load M/S	Maximum Load Bar
PSB+1	Fiocchi	Fiocchi Small Pistol	36.50	6.5	343	2168	7.2	380	2805

Loading Data 158 LRN

Powder	Shotshell Case	Primer	C.O.L. mm	Initial Load Grs	Initial Load M/S	Initial Load Bar	Maximum Load Grs	Maximum Load M/S	Maximum Load Bar
PSB+3	Fiocchi	Fiocchi Small Pistol	40.00	7.1	351	2217	7.8	386	2786
PSB+1	Fiocchi	Fiocchi Small Pistol	40.00	7.3	351	2197	8.1	390	2834

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LOADING TABLES

Calibre: 40 S & W

Height shotshell case mm 21.59 Volume shotshell case cc 1.40

Maximum height of charged cartridge 28.83 mm

Diameter mm 10.17 Section cm^2 0.812

LIMIT Pmax CIP 2,250 bar

75%: Pmax. CIP 1,688 95% Pmax. CIP 2,138

Loading Data 180 CTC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Magtech Small Pistol	28.70	3.2	230	1598	3.6	259	2084
PSB+5	Fiocchi	Magtech Small Pistol	28.70	3.9	261	1684	4.3	288	2114
PSB+3	Fiocchi	Magtech Small Pistol	28.70	4.3	270	1626	4.8	302	2112
PSB+1	Fiocchi	Magtech Small Pistol	28.70	4.6	275	1670	5.0	299	2040
PSB+2	Fiocchi	Magtech Small Pistol	28.70	4.7	279	1645	5.2	309	2102
PSB+2SP	Fiocchi	Magtech Small Pistol	28.70	4.7	276	1632	5.2	306	2085

Continuation Calibre: 40 S & W

Loading Data 181 CFP

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small PIstol	28.50	3.3	242	1573	3.7	271	2040
CSB 3	Fiocchi	Fiocchi Small Pistol	28.50	3.6	246	1618	4.0	273	2061
CSB 4	Fiocchi	Fiocchi Small Pistol	28.50	3.9	259	1543	4.4	292	2045
CSB 1M	Fiocchi	Fiocchi Small Pistol	28.50	4.6	275	1614	5.1	305	2071
CSB 2	Fiocchi	Fiocchi Small Pistol	28.50	4.7	250	1646	5.2	276	2104

Loading Data 182 LTC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Small Pistol	28.50	3.6	266	1605	4.0	296	2051
CSB 4	Fiocchi	Fiocchi Small Pistol	28.50	3.9	259	1598	4.4	293	2127
CSB 3	Fiocchi	Fiocchi Small Pistol	28.50	3.9	268	1632	4.3	296	2056
CSB 1M	Fiocchi	Fiocchi Small Pistol	28.50	4.5	269	1640	5.0	299	2122
CSB 2	Fiocchi	Fiocchi Small Pistol	28.50	5.0	268	1619	5.5	295	2058

Continuation Calibre: 40 S & W

Loading Data 170 JTC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	Magtech Small Pistol	28.70	3.6	255	1648	4.0	283	2096
CSB 5	Fiocchi	Fiocchi Small Pistol	28.50	4.1	303	1660	4.5	333	2064
PSB+5	Fiocchi	Magtech Small Pistol	28.70	4.3	274	1657	4.7	300	2041
CSB 3	Fiocchi	Fiocchi Small Pistol	28.50	4.4	303	1652	4.9	338	2133
CSB 4	Fiocchi	Fiocchi Small Pistol	28.50	4.4	293	1618	4.9	326	2088
PSB+3	Fiocchi	Magtech Small Pistol	28.70	4.8	289	1621	5.3	320	2057
PSB+1	Fiocchi	Magtech Small Pistol	28.70	5.0	292	1682	5.5	321	2120
CSB 1M	Fiocchi	Fiocchi Small Pistol	28.50	5.1	306	1680	5.6	336	2113
PSB+2SP	Fiocchi	Magtech Small pistol	28.70	5.2	296	1625	5.7	324	2034
PSB+2	Fiocchi	Magtech Small Pistol	28.70	5.3	300	1670	5.8	329	2085
CSB 2	Fiocchi	Fiocchi Small Pistol	28.50	5.6	300	1613	6.2	333	2084

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LOADING TABLES

Calibre: 44 Rem MAG

Height shotshell case mm 32.64 Volume shotshell case cc 2.456

Maximum height of charged cartridge 40.89 mm

Diameter mm 10.97 Section cm^2 0.945

LIMIT Pmax CIP 2,800 bar

75%: Pmax. CIP 2,100 95% Pmax. CIP 2,660

Loading Data 240 LTC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+3	Fiocchi	Fiocchi Large Pistol	40.80	9.3	329	2064	10.3	364	2639
PSB+1	Fiocchi	Fiocchi Large Pistol	40.80	9.7	331	2060	10.7	366	2615
PSB+2	Fiocchi	Fiocchi Large Pistol	40.80	10.4	341	2068	11.5	377	2652
PSB+2SP	Fiocchi	Fiocchi Large Pistol	40.80	10.7	343	2038	11.9	382	2658
SSB+150	Fiocchi	Fiocchi Large Pistol	40.80	12.3	361	2056	13.5	396	2620

Continuation Calibre: 44 Rem MAG

Loading Data 240 SJSP

					Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+3	Fiocchi	Fiocchi Large Pistol	40.60	9.5	321	2082	10.5	355	2642
PSB+1	Fiocchi	Fiocchi Large Pistol	40.60	9.8	324	2061	10.9	360	2660
PSB+2	Fiocchi	Fiocchi Large Pistol	40.60	10.6	337	2092	11.7	372	2662
PSB+2SP	Fiocchi	Fiocchi Large Pistol	40.60	10.6	333	2057	11.7	368	2617
SSB+150	Fiocchi	Fiocchi Large Pistol	40.60	12.9	359	2046	14.2	396	2622

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LOADING TABLES

Calibre: 45 ACP

Height shotshell case mm 22.81 Volume shotshell case cc 1.86

Maximum height of charged cartridge 32.39 mm

Diameter mm 11.48 Section cm^2 1.035

LIMIT Pmax CIP 1,300 bar

75%: Pmax. CIP 975 95% Pmax. CIP 1,235

Loading Data 230 CRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	CCI 300 Large Pistol	31.80	3.2	200	984	3.5	219	1193
PSB+5	Fiocchi	CCI 300 Large Pistol	30.50	3.9	219	933	4.4	247	1221
PSB+1	Fiocchi	CCI 300 Large Pistol	30.50	4.5	231	938	5.0	257	1191
PSB+3	Fiocchi	CCI 300 Large Pistol	30.50	4.6	239	976	5.1	266	1234

Continuation Calibre: 45 ACP

Loading Data 233 LRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Large Pistol	31.00	3.4	223	962	3.8	249	1228
CSB 4	Fiocchi	Fiocchi Large Pistol	31.00	3.7	213	898	4.2	241	1190
CSB 3	Fiocchi	Fiocchi Large Pistol	31.00	4.1	221	952	4.6	248	1234
CSB 1M	Fiocchi	Fiocchi Large Pistol	31.00	4.6	216	951	5.1	240	1203
CSB 2	Fiocchi	Fiocchi Large Pistol	31.00	4.8	214	952	5.3	237	1196

Loading Data 233 CRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 5	Fiocchi	Fiocchi Large Pistol	32.00	3.5	217	965	3.9	242	1221
CSB 3	Fiocchi	Fiocchi Large Pistol	32.00	4.2	214	940	4.7	240	1206
CSB 4	Fiocchi	Fiocchi Large Pistol	32.00	4.4	217	971	4.9	242	1234
CSB 2	Fiocchi	Fiocchi Large Pistol	32.00	5.0	211	970	5.4	228	1154
CSB 1M	Fiocchi	Fiocchi Large Pistol	32.00	5.1	247	981	5.6	272	1212

Loading Data 229 JRN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Fiocchi	CCI 300 Large Pistol	31.90	3.6	203	954	4.0	226	1202
CSB 5	Fiocchi	Fiocchi Large Pistol	32.00	3.8	237	971	4.2	262	1210
CSB 4	Fiocchi	Fiocchi Large Pistol	32.00	4.2	230	938	4.7	258	1205
PSB+5	Fiocchi	CCI 300 Large Pistol	32.00	4.3	225	978	4.7	246	1193
CSB 3	Fiocchi	Fiocchi Large Pistol	32.00	4.6	236	970	5.1	262	1224
PSB+3	Fiocchi	CCI 300 Large Pistol	32.00	5.0	239	949	5.6	268	1228
PSB+1	Fiocchi	CCI 300 Large Pistol	32.00	5.1	241	968	5.6	265	1198
CSB 1M	Fiocchi	Fiocchi Large Pistol	32.00	5.2	233	986	5.7	255	1217
CSB 2	Fiocchi	Fiocchi Large Pistol	32.00	5.4	230	977	5.9	251	1198

Loading Data 200 LFN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+5	Fiocchi	CCI 300 Large Pistol	30.10	4.5	268	966	5.0	298	1234
PSB+3	Fiocchi	CCI 300 Large Pistol	30.10	5.4	285	950	5.9	311	1188
PSB+1	Fiocchi	CCI 300 Large Pistol	30.10	5.6	285	951	6.2	315	1217

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LOADING TABLES

Calibre: 45 COLT

Height shotshell case mm 32.64 Volume shotshell case cc 2.722

Maximum height of charged cartridge 40.64 mm

Diameter mm 11.58 Section cm^2 1.053

LIMIT Pmax CIP 1,100 bar

75%: Pmax. CIP 825 95% Pmax. CIP 1,045

Loading Data 255 LTC GC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Starline	CCI 300 Large Pistol	40,64	5.3	228	826	5.9	254	1043
PSB+5	Starline	CCI 300 Large Pistol	40,64	6.3	246	834	6.9	270	1019
PSB+3	Starline	CCI 300 Large Pistol	40,64	7.2	257	842	7.9	282	1037
PSB+1	Starline	CCI 300 Large Pistol	40,64	7.3	257	831	8.0	282	1020

Continuation Calibre: 45 COLT

Loading Data 240 JHC

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
CSB 6	Starline	CCI 300 Large Pistol	40.30	5.7	232	836	6.3	257	1040
PSB+5	Starline	CCI 300 Large Pistol	40.30	6.9	252	848	7.5	274	1020
PSB+3	Starline	CCI 300 Large Pistol	40.30	8.0	267	840	8.8	294	1043
PSB+1	Starline	CCI 300 Large Pistol	40.30	8.1	265	827	8.9	292	1024

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LOADING TABLES

Calibre: 460 S & W MAG

Height shotshell case mm 45.72 Volume shotshell case cc 3.784

Maximum height of charged cartridge 58.12 mm

Diameter mm 11.49 Section cm^2 1.037

LIMIT Pmax CIP 3,950 bar

75%: Pmax. CIP 2,963 95% Pmax. CIP 3,753

Loading Data 297 LGC FN

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+3	Starline	LR CCI 200	55.00	16.8	397	2950	18.5	437	3732
PSB+1	Starline	LR CCI 200	55.00	18.4	410	2966	20.2	451	3744
PSB+2SP	Starline	LR CCI 200	55.00	18.5	415	2951	20.3	455	3722
PSB+2	Starline	LR CCI 200	55.00	19.2	423	2963	21.0	463	3716

Continuation Calibre: 460 S & W MAG

Loading Data 200 JFTX

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
PSB+3	Starline	LR CCI 200	58.00	19.4	516	2956	21.3	568	3732
PSB+2SP	Starline	LR CCI 200	58.00	23.0	538	2959	25.2	591	3761
PSB+2	Starline	LR CCI 200	58.00	23.4	540	2943	25.6	592	3731
PSB+1	Starline	LR CCI 200	58.00	23.5	540	2948	25.7	592	3735

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LOADING TABLES

Calibre: 223 REMINGTON

Height shotshell case mm 44.70 Volume shotshell case cc 1.980

Maximum height of charged cartridge 57.40 mm

Diameter mm 5.70 Section cm^2 0.255

LIMIT Pmax CIP 4,300 bar

75%: Pmax. CIP 3,225 95% Pmax. CIP 4,085

Loading Data 69 HPBT Sierra

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 400 Small Rifle	57.40	21.5	810	2568	23.0	870	3198

Loading Data 55 FMJBT Sierra

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 400 Small Rifle	56.80	23.0	927	2886	24.5	991	3576

Continuation Calibre: 223 REMINGTON

Loading Data 55 SPBT Sierra

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 400 Small Rifle	57.00	23.0	922	2854	24.5	986	3531

Loading Data 55 TSXFB Barnes

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 400 Small Rifle	55.40	23.0	923	3066	24.5	987	3839

Loading Data 55 Ballistic Tip Nosler

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 400 Small Rifle	57.40	23.5	914	2617	25.0	977	3249

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LOADING TABLES

Calibre: 243 WINCHESTER

Height shotshell case mm 51.94 Volume shotshell case cc 3.550

Maximum height of charged cartridge 68.83 mm

Diameter mm 6.17 Section cm^2 0.299

LIMIT Pmax CIP 4,150 bar

75%: Pmax. CIP 3,113 95% Pmax. CIP 3,943

Loading Data 100 SPBT Sierra

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	67.30	31.0	804	3225	33.0	858	3863

Loading Data 95 Ballistic Tip Nosler

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	68.10	31.1	824	3187	33.0	877	3784

Continuation Calibre: 243 WINCHESTER

Loading Data 80 Barnes TTSSX

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	66.30	32.0	887	3099	34.0	946	3711

Loading Data 80 SPBT Sierra

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	66.90	32.9	900	2953	35.9	988	3830

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LOADING TABLES

Calibre: 270 WINCHESTER

Height shotshell case mm 64.52 Volume shotshell case cc 4.320

Maximum height of charged cartridge 84.84 mm

Diameter mm 7.06 Section cm^2 0.391

LIMIT Pmax CIP 4,300 bar

75%: Pmax. CIP 3,225 95% Pmax. CIP 4,085

Loading Data 160 Partition Nosler

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	84.30	41.0	749	3303	44.0	806	4091

Loading Data 130 TTSX Barnes

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	81.60	42.0	831	3284	45.0	893	4068

Continuation Calibre: 270 WINCHESTER

Loading Data 140 SPBT Sierra

					Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	83.80	42.4	813	3308	45.4	874	4074

Loading Data 140 Partition Nosler

					Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	84.30	42.5	806	3306	45.5	867	4073

Loading Data 140 Ballistic Tip Nosler

					Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	84.30	42.5	806	3247	45.7	870	4063

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LOADING TABLES

Calibre: 308 WINCHESTER

Height shotshell case mm 51.18 Volume shotshell case cc 3.620

Maximum height of charged cartridge 71.12 mm

Diameter mm 7.85 Section cm^2 0.484

LIMIT Pmax CIP 4,150 bar

Loading Data 180 Partition Nosler

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	71.00	33.9	686	2801	37.5	762	3824

Loading Data 180 SPBT Sierra

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	71.00	34.7	699	2828	38.0	768	3739

Loading Data 150 TTSX Barnes

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	72.40*	35.0	744	2872	37.5	799	3550

(*) C.O.L. mayor de la altura máxima.

Continuation Calibre: 308 WINCHESTER

Loading Data 175 HPBT Sierra

					Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	70.80	35.4	736	3427	36.0	749	3604

Loading Data 168 HPBT Sierra

					Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	71.00	36.2	755	3388	37.5	783	3770

Loading Data 150 SPBT Sierra

					Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	71.00	37.4	742	2549	40.0	838	3665

Loading Data 150 Partition Nosler

					Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	CCI 200 Large Rifle	71.00	38.2	808	3424	39.0	825	3647

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LOADING TABLES

Calibre: 30 - 06 SPRINGFIELD

Height shotshell case mm 63.35 Volume shotshell case cc 4.350

Maximum height of charged cartridge 84.84 mm

Diameter mm 7.85 Section cm^2 0.484

LIMIT Pmax CIP 4,050 bar

Loading Data 168 TTSX Barnes

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	Fiocchi Large Rifle	83.00	40.6	714	2275	47.5	841	3753

Loading Data 180 SPBT Sierra

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	Fiocchi Large Rifle	81.90	42.1	719	2392	47.0	806	3370

Continuation Calibre: 30 - 06 SPRINGFIELD

Loading Data 180 Partition Nosler

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	Fiocchi Large Rifle	84.00	42.5	722	2483	48.0	819	3635

Loading Data 150 SPBT Sierra

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	Fiocchi Large Rifle	81.90	44.9	794	2403	50.5	898	3482

Loading Data 150 Partition Nosler

				Initial Load			Maximum Load		
Powder	Shotshell Case	Primer	C.O.L. mm	Grs	M/S	Bar	Grs	M/S	Bar
GDB 111	Partizan	Fiocchi Large Rifle	84.00	46.7	821	2667	51.5	910	3626

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FREQUENTLY ASKED QUESTIONS
GENERAL SAFETY

1 Can I reload my own ammunition?

Depending on the laws in your country, it may be possible and even fun. However, it is crucial that you take extreme caution during the reloading process. It is imperative that you follow the instructions and specialised texts from the products' manufacturers, particularly in relation to safety procedures and the powder measurements.

2 What do I need to reload my own ammunition?

First of all, it is essential that you have accurate scales to measure the powder in order to control the proper dose. Additionally, depending on the load you want, you will need volumetric feeders and equipment to crimp the plastic shells or the necessary tools to load and close the metallic cartridge.
There are reloading kits available for purchase which include the essential tools, tools for proper dosing and measuring instruments.

3 How do I select each component?

It all depends on what you want to reload.
For plastic cartridges for smoothbore weapons, you will need empty shells, primers, powder, wads (made of plastic or other material) and the shot, buckshot or slug.
For metallic cartridges, you will need the shells, primers, powder and desired gauge that you have to load.
Always keep in mind that, in your country, there may be maximum limit for active/live cartridges.
Apart from powder, you are able to purchase components from different manufacturers through your trusted gun shop or over the Internet.

4 Can I reuse used shells?

Plastic shells may be used up to 3-4 times, depending on their use and deterioration.
A reloading press will be needed to load used shells which will push out the fired primer out, insert a new primer and crimp the cartridge.
For metal cartridges, in addition to reloading equipment to replace the used primers, you will need the correct tools to insert and set the bullet.

5 What are the main steps to follow to reload used shells?

External and internal cleaning; recalibration, open/widen the opening, replace the primer, measure and load the powder; and then:
For smoothbore guns with plastic shell: insert the wad, the shot or slug, and then close and crimp the shell.
For rifled bore metal ammunition, insert and close the bullet.
Metal shell ammunition requires an external lubrication before recalibration to avoid it becoming lodged in the barrel.
If this were to occur, a special tool is needed to dislodge the shell. Reusing this shell is not recommended.

6 How do I choose the correct dose for the load?

It is always a good idea to start with a dose of 10% to 15% lower than the limits established in the Loading Tables. This is mainly for safety reasons given that there are many variables which influence components, especially with the powder and in this way it is easier to measure the correct amount of powder.

7 How have the results in these Loading Tables been obtained?

Tests were conducted in manometre barrels which are equipped with speedometers (measured at 2 metres from the opening) and a piezoelectric pressure gauge.

8 Can I measure the speed myself?

To measure pressure, you would need a manometre barrel with a piezoelectric sensor which is very expensive and difficult to obtain. Additionally, there are chronographs available on the market which can be used to measure speed near the opening which are very accurate.

9 Do atmospheric changes affect components?

Single base powders (like the majority of MAXAM powders) are strongly affected by temperature and more so by humidity. Low temperatures and high humidity decrease the powder's performance; whereas, high temperatures and low humidity result in more effective results. For this reason, you should always store powders in sealed containers and in places with controlled temperature and humidity.

10 Does barrel length affect precision and speed?

Barrel length does not affect pressure; whereas, within certain limits, velocity increases with barrel length.
However, it is good to remember that in the case of an insufficient load, the wrong primer, or a slower powder dose, pressure (which normally develops its peak within or near the chamber and then slows very quickly) reaches its maximum speed at the end of the barrel determining what is called a long fire. It is very rare but, in some cases, bulging in the barrel may occur.

11 Where should reloading components be stored?

Follow the laws of your country. Always keep them out of reach of children and in a cool, dry place.

12 Can I mix different powders?

Never mix powders. Always keep powders in their original containers to avoid confusion because, even though they look similar, many powders have very different behaviours.

13 What should I do before starting the load?

Always check the tools you will use. Do not put a load in if you are under the influence of alcohol or drugs or if you are in an anxious state of mind. If you find powder in the dispenser or out of its packaging, never use it.

14 What should I do while loading?

Wear safety goggles and always be very aware of what you are doing. If you load using volume dispensers, do regular checks on powder and shot weight.

15 What should I do upon finishing reloading?

Check that the dispensers and scales are clean and empty, return components to their original packaging and thoroughly clean your work area and surroundings using antistatic tools. Finally, wash your hands thoroughly.

FREQUENTLY ASKED QUESTIONS FOR RIFLED BARRELS

16 Does the volume of the shells influence ballistics?

Very much so. With all other conditions constant, the smaller the volume, the greater the speed and especially the pressure. It is always advisable to measure the internal volume of the shell, especially when changing brand or using military surplus. This can be done easily by filling the shell to its limit with distilled water and weighing it.

17 Does the distance between the grooves in the rifled barrel influence the internal ballistics, for example, maximum pressure?

No. With normal rifled barrels used in the production of small arms, the effect is negligible. The path through a rifled barrel contributes to the stability of the projectile in flight (external ballistics). Comparing two barrels with different distances between grooves and attributing this to the difference in pressure and speed is a mistake.

18 How do barrels of the same calibre often produce such different speeds, especially rifles?

Often the difference is due to the distance between the chamber and the start of the grooves in the barrel. Also the diameter of the barrel's borehole can have a big impact on performance but this rarely occurs.

19 Does the total length of the cartridge influence the internal ballistics?

It depends on the specific dimension, the gauge's capacity and the varying entity. For example, a pistol calibre difference of 0.5 mm to 1.0 mm can have an effect of even 20% on the maximum pressure; whereas, the same difference for a rifle calibre, where the length is much greater, will be very small or negligible.

20 Does the total length of the cartridge influence the accuracy of the rifle calibres?
Does a longer length result in better concentration of the bullets?

Not always since a longer cartridge may improve alignment with the axis of the chamber and the bore. In general, it is in good practice to keep the bullet's nose near, but not touching the beginning of the grooves. A separation of 0.5 mm to 1.0 mm is recommended.

21 Should I use a vibrating polisher to treat the shells?

It is not necessary. But you should clean and lubricate the shells before recalibration to remove any remnants from a previous combustion and the abrasive particles that can damage or scratch matrices and shells.

22 Why should I lubricate shells?

Lubrication allows the shell to enter the chamber and ensures that recalibration is uniform. Some pistol shells, such as cylindrical ones, do not require lubrication if a tungsten chamber is used. Not using lubrication in rifle shells can result in it becoming jammed in the chamber.

23 How do I remove a stuck shell?

It is recommended to have a removal tool and follow its instructions. With the right tool, extraction is much easier and does not damage the chamber.

24 How I can know if there is too much lubrication?

When this occurs, usually a ridge or a depression on the side of the shell will form. The instructions on the lubricants' packaging can determine the exact amount.

25 Should I cut the shell every time I reload and how do I know the length it should be?

No, it is not necessary to cut each time. The Reloading Handbook shows the specifications of the cut length ("adjust to" length) indicating the minimum length of the shell which is enough to hold the bullet.

26 Should I clean the primer base?

It is not mandatory but cleaning allows the primer to fit correctly and helps prevent percussion defects due to incomplete collapse.

27 Can I replace air rifle primers with primers from handguns?

No. You should always adhere to the information for the cartridge you want to load and use only those components that are indicated for that cartridge. These have been widely tested and ensure that the reloading data is not dangerous. Adhering strictly to the information guarantees a safe and problem-free reload.

28 If the bullet has sunk too deep, do I have to dispose of the cartridge?

No, all you will need is a kinetic extractor hammer and follow the instructions given by the manufacturer.

29 After checking my finished cartridges, I noticed that in some of them the primer protrudes out slightly in the back. Can I correct it by using a primer inserter?

Absolutely not! It may cause the accidental firing of the cartridge. You must use an extractor to remove the bullet and powder and only then replace the primer. Controlling the primer position must be performed immediately after the insertion operation.

30 Can I use bullets removed or salvaged from old military surplus?

Yes, but it is forbidden to use tracers, armour-piercing, or incendiary bullets. The bullet must have the correct diameter and the right weight for your cartridge and powder to be used.

31 A bullet fell nose first and now the nose is deformed. Can I still use it?

Yes, it can still be used, although a deformed bullet may be less accurate than a normal one.

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