

WINCHESTER[®]

A M M U N I T I O N



Winchester[®] Reloading Components Manual

2003 Edition

Reloading Data Included

Winchester® Powder & Primers



WINCHESTER
BALL POWDER
296
DANGER - HIGHLY FLAMMABLE
DANGER - HIGHLY INFLAMMABLE

WINCHESTER
BALL POWDER
WST SUPER-TARG
DANGER - HIGHLY FLAMMABLE
DANGER - HIGHLY INFLAMMABLE

WINCHESTER
BALL POWDER
760
DANGER - HIGHLY FLAMMABLE
DANGER - HIGHLY INFLAMMABLE

WINCHESTER
BALL POWDER
231
DANGER - HIGHLY FLAMMABLE
DANGER - HIGHLY INFLAMMABLE

WINCHESTER
BALL POWDER
WSF SUPER-FIELD
DANGER - HIGHLY FLAMMABLE
DANGER - HIGHLY INFLAMMABLE

WINCHESTER
BALL POWDER
748
DANGER - HIGHLY FLAMMABLE
DANGER - HIGHLY INFLAMMABLE

WINCHESTER
SMOKELESS PROPELLANT
WXR
DANGER - HIGHLY FLAMMABLE
DANGER - HIGHLY INFLAMMABLE

WINCHESTER
25 LBS.
#4
SHOT
American Standard
SUPER-SHOT
Clip
WINCHESTER
EAST ALTON, IL

Winchester® Powders



WST

The choice for 12 gauge AA® duplicate handloads and standard velocity handgun loads. Ideal for use in 45 Auto match applications. Consistent, clean, low flash and smoke are benefits to the shooter.



231

One of the most popular reload propellants, 231 is a pistol powder ideally suited to the 38 Special, 45 Auto, and 9mm standard loads. Consistency, clean burning, low flash, and a broad range of applications make this a powder of choice on any pistol cartridge reloader's shelf.



WSF

Super-Field® propellant is the propellant of choice for Winchester 20 gauge AA® Target Load. WSF is an ideal choice to maximize velocities in 12 gauge 1-1/8 oz. and 1-1/4 oz. loads. Super-Field also performs well in 38 Super, 9mm and 40 S&W pistol loads. Excellent propellant for action pistol applications.



296

This propellant was developed for Winchester factory loaded ammunition for 357 magnum, 44 magnum and 410 bore. Its high loading density provides optimal velocity. 296 is recommended by Winchester for 410 bore AA loads.



748

748 is the powder of choice for 223 Rem ammunition. The low flame temperature of 748 extends barrel life versus other similar speed powders. It is ideal for a wide variety of centerfire rifle loads including 222 Rem, 30-30 Win, 308 Win, and up to 458 Win Mag.



760

Combine Winchester components with 760 to duplicate 30-06 Springfield factory load ballistics. 760 has ideal flow characteristics which give it an advantage over other propellants with similar burn rates. 760 is recommended as an excellent choice for 22-250 Rem, 300 Win Mag, as well as 300 WSM.



Extruded Powder

WXR

WXR is the propellant of choice for 7mm Remington Magnum ammunition. It's a double base, slow burning extruded propellant used to achieve maximum velocities and deliver superior performance in a wide variety of rifle cartridges.

Winchester® Primers

You can't buy a more reliable primer than Winchester. Ignition is instant and precise. In Winchester testing labs, primers are constantly and rigorously tested for consistency and sensitivity at temperatures and conditions far beyond the range of normal usage. Ignition reliability is assured when you use Winchester primers.

- Better sensitivity for more positive firing in all guns.
- We have 8 different primers to cover your reloading needs for shotshells, rifle and handgun cartridges.
- Non-corrosive, non-mercuric.
- Weight of the primer mixture is carefully controlled.
- Every Winchester primer is consistent in dimensions and quality.
- Anvil heights are measured to precise tolerances to assure perfect ignition.
- Winchester primers maintain stability in extremes of temperature and humidity.

WARNING - Primers may explode if subjected to impact, shock, or intense heat. Store in original factory container only. Primers in bulk are capable of mass explosion. Do not use primer feed devices for reloading.

Winchester Primers: Centerfire primers are recommended for use as follows:

Large Standard Rifle - WLR

22-250 Remington	270 Winchester	30-30 Winchester	308 Winchester
223 WSSM	270 WSM	30 Remington	32 Winchester Special
225 Winchester	284 Winchester	30-06 Springfield	8mm Mauser
243 Winchester	7mm Mauser	30-40 Krag	338 Winchester Magnum
243 WSSM	7mm-08 Remington	300 WSM	35 Remington
6mm Remington	7mm STW	300 Winchester Magnum	356 Winchester
25-35 Winchester	7mm Remington Magnum	300 H&H Magnum	358 Winchester
250 Savage	7mm WSM	300 Savage	375 H&H Magnum
25-06 Remington	280 Remington	303 Savage	38-55 Winchester
257 Roberts +P	7.62 x 39mm	303 British	458 Winchester Magnum
7mm-08 Remington			

Small Rifle - WSR

218 Bee	223 Remington	357 Remington Maximum
22 Hornet	25-20 Winchester	9x23 Winchester
222 Remington	256 Winchester Magnum	454 Casull
222 Remington Magnum	30 Carbine	

Small Standard Pistol - WSP

25 Automatic	32 Short Colt	38 S&W	38 Super Automatic +P
30 Luger	32 Long Colt	38 Special	38 Automatic
32 Automatic	32 Colt New Police	38 Short Colt	380 Automatic
32 S&W	9mm Luger	38 Long Colt	357 SIG
32 S&W Long	9mm Winchester Magnum	38 Colt New Police	40 S&W

Large Pistol - WLP

38-40 Winchester	44 S&W Special	45 Colt
10mm Automatic	44-40 Winchester	45 Automatic
41 Magnum	44 Magnum	45 Winchester Magnum

Small Magnum Pistol - WSPM

357 Magnum

Large Magnum Rifle - WLRM

Large rifle magnum primer for those heavy charges of slow powder where extra ignition is required. Use only where magnum primers are specified.

Shotshell - #209

Winchester #209 Shotshell primers are recommended for superior performance in all standard gauge shotshell reloading applications.

Muzzleloading - #209

Winchester #209 Muzzleloading primers are recommended for superior performance in all standard In-line muzzleloading applications.



Winchester®



Winchester® Primers for Shotshells are made with a low cost, high performance plastic primer cup. Winchester® Primers for Shotshells are made with a low cost, high performance plastic primer cup.

Winchester® Primers for Shotshells are made with a low cost, high performance plastic primer cup. Winchester® Primers for Shotshells are made with a low cost, high performance plastic primer cup.

Wads & Shot

Winchester® AA® wads are available to the handloader in eleven types in 4 different gauges. All wads are packed 250 per container, except the WT12 which is 500. The 12 and 20 gauge wads are packed 5,000 per case. The 28 gauge and .410 wads are packed 2,500 per case.



WAA12L - gray, one-piece wad specially designed to duplicate the 24 gram Olympic load and 7/8 oz. loads. Can also be used for one ounce loads.



WAA12SL - pink, one-piece wad used in 12 gauge for 1 to 1-1/8 ounce loads. A tight crimp offers the best performance.

WAA12 - white, one-piece wad for use in 12 gauge 1-1/8 ounce loads for trap, skeet, sporting clays and field loads and other loads as shown in the data.



WT12 - orange, one-piece wad. Economical substitute for WAA12, can also be used where WAA12 is called out.

WAA12F114 - a yellow, flared petal AA wad designed specifically for 12 gauge field loads with 1-1/4 ounce and 1-3/8 ounce shot charges.

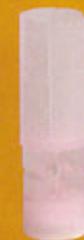
WAA12R - red, one-piece wad for use in a wide variety of cases, with heavy field loads.



WAA20 - white, one-piece wad for use in 20 gauge for skeet and field loads for 7/8 to 1 ounce loads.

WAA28HS - red, one-piece wad for use in 28 gauge High Strength (HS) cases for skeet, sporting clays, and field loads. (See information on page 13)

WAA28 - pink, one-piece wad for use in 28 gauge compression formed cases for skeet and field loads.



WAA410HS - red, one-piece wad for use in .410 bore High Strength (HS) cases for skeet, sporting clays, and field loads. (See information on page 13)

WAA410 - white, one-piece wad for use in .410 bore compression formed cases for skeet and field loads.



Winchester® Shot



Winchester uniform chilled lead shot provides consistent shot patterns and better penetration. Strict quality control throughout the manufacturing process assures the ultimate in performance. All Winchester shot is available in 25 pound bags.

Chilled Shot		
Symbol	Description	
SS00BY	00	BUCK
SC2Y	#2	Chilled
SC4Y	#4	Chilled
SC5Y	#5	Chilled
SC6Y	#6	Chilled
SC75Y	#7½	Chilled
SC8Y	#8	Chilled
SC9Y	#9	Chilled

Hard Shot (AA®)		
Symbol	Description	
SC75YH	#7½	Hard
SC8YH	#8	Hard
SC9YH	#9	Hard



Reloading the New AA® High Strength Hull

Reloading the New AA® High Strength Hull

Winchester® has designed the new 12-gauge AA high strength hull to reload with the same reloading data as the old AA hull. However, on some reloading machines, even though the components and reloading data are the same, there may need to be a minor adjustment made to the reloading machine to optimize load fit and appearance.

Some adjustments that can be made:

Shooters need to lower the starter crimp or pie crimp (fig 1). Proper adjustment should eliminate the slight buckle some shooters see if this adjustment is not made.

The shell in fig 2 shows an example of the crimp after adjusting the starter crimp stage. Shooters should not be able to put a pencil eraser down into the shell after the proper adjustment.

Another adjustment that can be made is to the wad ram (fig 3). Most reloading machines are set up for 25 to 30 lbs. of pressure. An increase of wad pressure (up to 45 lbs.) will help seat the wad, and will help the final crimping on the shell.

On some reloading machines with a tapered crimp die, be sure that the final crimping stage on the reloading machine is clean and has no residue build up.

Please contact your reloading machine manufacturer if you need additional assistance making the proper adjustments to your reloader.

Shooters have found that after making a slight adjustment to the reloading machines good quality crimps and long reloading life are consistently obtained with the new AA high strength hull. The old style AA hull can also be reloaded with the new adjustments.



Fig 1



Fig 2



Fig 3

Shotshell Reloading Data

12 Gauge 2-3/4" Case - AA®

New HS or Compression Formed

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
7/8 oz.*	Win. 209	WST	22.0	Win. WAA12L	1325	7,900 psi
7/8 oz.	Fed. 209A	WST	23.5	Win. WAA12L	1355	7,400 psi
7/8 oz.	CCI 209	WST	23.5	Win. WAA12L	1355	7,200 psi
7/8 oz.	Win. 209	WST	23.5	Win. WAA12L	1400	8,200 psi
1 oz.**	Win. 209	WST	19.5	Win. WAA12SL	1180	7,400 psi
1 oz.	Win. 209	WST	19.0	Fed. 12S0	1180	8,000 psi
1 oz.	CCI 209	WST	19.0	Fed. 12S0	1180	8,300 psi
1 oz.	Fed. 209A	WST	19.0	Win. WAA12SL	1180	7,900 psi
1 oz.	Win. 209	WST	19.5	Win. WAA12L	1200	8,500 psi
1 oz.	Win. 209	WST	21.0	Win. WAA12SL	1235	8,100 psi
1 oz.	Win. 209	WST	20.5	Fed. 12S0	1235	9,500 psi
1 oz.	CCI 209	WST	21.5	Win. WAA12SL	1235	7,900 psi
1 oz.	CCI 209	WST	20.5	Fed. 12S0	1235	9,500 psi
1 oz.	Fed. 209A	WST	20.0	Win. WAA12SL	1235	8,900 psi
1 oz.	Win. 209	WST	21.0	Win. WAA12L	1255	9,600 psi
1 oz.	Fed. 209A	WST	21.5	Win. WAA12L	1255	8,800 psi
1 oz.	CCI 209	WST	21.0	Win. WAA12L	1255	8,400 psi
1 oz.	Win. 209	WST	22.0	Win. WAA12SL	1290	9,000 psi
1 oz.	Win. 209	WST	22.0	Fed. 12S0	1290	10,900 psi
1 oz.	CCI 209	WST	22.5	Win. WAA12SL	1290	9,400 psi
1 oz.	CCI 209	WST	21.5	Fed. 12S0	1290	10,700 psi
1 oz.	Fed. 209A	WST	21.0	Win. WAA12SL	1290	9,800 psi
1 oz.	Win. 209	WST	22.5	Win. WAA12L	1325	11,100 psi
1 oz.	CCI 209	WST	22.5	Win. WAA12L	1325	10,200 psi
1 1/8 oz.***	Win. 209	WST	18.5	Win. WAA12	1145	8,600 psi
1 1/8 oz.	Win. 209	WST	19.0	Rem. RXP12	1145	8,700 psi
1 1/8 oz.	Win. 209	WST	19.0	Rem. Fig-8	1145	8,400 psi
1 1/8 oz.	Win. 209	WST	19.0	Fed. 12S3	1145	9,800 psi
1 1/8 oz.	CCI 209	WST	19.0	Win. WAA12	1145	9,100 psi
1 1/8 oz.	CCI 209	WST	19.5	Rem. RXP12	1145	8,800 psi
1 1/8 oz.	CCI 209	WST	19.0	Rem Fig-8	1145	9,000 psi
1 1/8 oz.	CCI 209	WST	19.0	Fed. 12S3	1145	9,500 psi
1 1/8 oz.	Fed. 209A	WST	18.5	Win. WAA12	1145	10,700 psi
1 1/8 oz.	Fed. 209A	WSF	21.5	Win. WAA12SL	1145	7,200 psi
1 1/8 oz.****	Win. 209	WST	20.0	Win. WAA12	1200	9,800 psi
1 1/8 oz.	Win. 209	WST	20.0	Rem. RXP12	1200	9,700 psi
1 1/8 oz.	Win. 209	WST	20.5	Rem. Fig-8	1200	10,000 psi
1 1/8 oz.	Win. 209	WST	20.0	Fed. 12S3	1200	10,900 psi
1 1/8 oz.	CCI 209	WST	20.5	Win. WAA12	1200	10,300 psi
1 1/8 oz.	CCI 209	WST	20.5	Rem. RXP12	1200	10,300 psi
1 1/8 oz.	CCI 209	WST	20.5	Rem. Fig-8	1200	10,000 psi
1 1/8 oz.	CCI 209	WST	20.5	Fed. 12S3	1200	10,800 psi
1 1/8 oz.	Fed. 209A	WSF	23.0	Win. WAA12SL	1200	8,400 psi
1 1/8 oz.	Fed. 209A	WSF	24.0	Win. WAA12SL	1255	9,100 psi
1 1/8 oz.	Win. 209	WSF	27.5	Win. WAA12	1310	8,700 psi
1 1/8 oz.	Win. 209	WSF	27.5	Fed. 12S3	1310	8,500 psi
1 1/8 oz.	Fed. 209A	WSF	25.5	Win. WAA12SL	1310	9,800 psi
1 1/8 oz.	Win. 209	WSF	29.0	Win. WAA12	1365	9,900 psi
1 1/8 oz.	Win. 209	WSF	28.5	Fed. 12S3	1365	9,500 psi
1 1/8 oz.	Win. 209	WSF	30.0	Win. WAA12	1400	10,600 psi
1 1/8 oz.	Win. 209	WSF	29.5	Fed. 12S3	1400	10,800 psi
1 1/4 oz.	Win. 209	WSF	26.0	Fed. 12S4	1220	9,000 psi
1 1/4 oz.	Win. 209	WSF	28.0	Win. WAA12F114	1275	9,700 psi
1 1/4 oz.	Win. 209	WSF	27.5	Fed. 12S4	1275	10,900 psi
1 1/4 oz.	CCI 209	WSF	29.0	Rem. RXP12	1275	10,400 psi
1 1/4 oz.	Fed. 209A	WSF	27.0	Win. WAA12F114	1310	10,700 psi
1 1/4 oz.	Win. 209	WSF	29.5	Win. WAA12F114	1330	10,600 psi
1 1/4 oz.	CCI 209	WSF	28.0	Rem. SP12	1330	9,800 psi

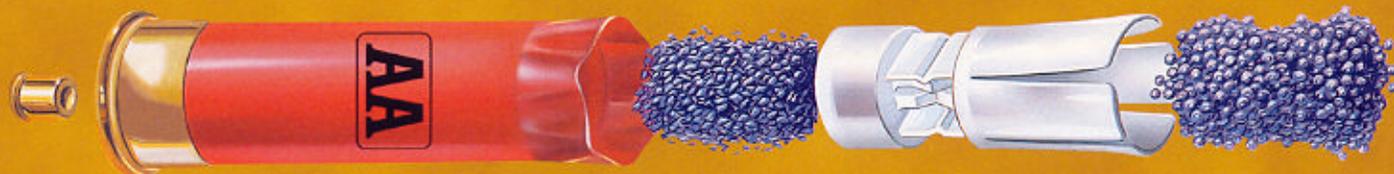
* This load will duplicate the ballistics of the factory Winchester AA International load.
 ** This load will duplicate the ballistics of the factory Winchester AA Xtra-Lite target load.
 *** This load will duplicate the ballistics of the factory Winchester AA Light 2-3/4 dram eq. target load.
 **** This load will duplicate the ballistics of the factory AA Winchester Heavy 3 dram eq. target load.

*Read the safety and warning information on pages 28-31 before using any of the data.

Shotshell Reloading Data

12 Gauge 2 3/4" Case Remington STS® & Nitro 27® Hulls

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
7/8 oz.	Win. 209	WST	21.0	Win. WAA12L	1325	8,200 psi
7/8 oz.	CCI 209	WST	21.5	Win. WAA12L	1325	8,100 psi
7/8 oz.	Fed. 209A	WST	21.0	Win. WAA12L	1325	8,300 psi
7/8 oz.	Win. 209	WST	23.0	Win. WAA12L	1400	10,300 psi
7/8 oz.	CCI 209	WST	23.0	Win. WAA12L	1400	9,000 psi
7/8 oz.	Fed. 209A	WST	23.0	Win. WAA12L	1400	9,700 psi
1 oz.	Win. 209	WST	19.0	Fed. 12S0	1180	8,200 psi
1 oz.	CCI 209	WST	19.0	Win. WAA12SL	1180	8,000 psi
1 oz.	CCI 209	WST	18.5	Fed. 12S0	1180	8,800 psi
1 oz.	Win. 209	WST	19.5	Win. WAA12SL	1235	8,000 psi
1 oz.	Win. 209	WST	20.0	Fed. 12S0	1235	8,900 psi
1 oz.	CCI 209	WST	20.0	Win. WAA12SL	1235	9,000 psi
1 oz.	CCI 209	WST	19.5	Fed. 12S0	1235	9,800 psi
1 oz.	Win. 209	WST	21.0	Win. WAA12SL	1290	10,000 psi
1 oz.	Win. 209	WST	21.0	Fed. 12S0	1290	9,700 psi
1 oz.	CCI 209	WST	21.0	Win. WAA12SL	1290	10,100 psi
1 oz.	CCI 209	WST	20.5	Fed. 12S0	1290	10,800 psi
1 1/8 oz.	Win. 209	WST	19.0	Rem. RXP12	1145	10,500 psi
1 1/8 oz.	Win. 209	WST	19.0	Rem. Fig-8	1145	10,400 psi
1 1/8 oz.	CCI 209	WST	18.0	Win. WAA12	1145	10,800 psi
1 1/8 oz.	CCI 209	WST	18.5	Rem. RXP12	1145	10,800 psi
1 1/8 oz.	CCI 209	WST	18.5	Rem. Fig-8	1145	10,200 psi
1 1/8 oz.	Win. 209	WSF	27.0	Win. WAA12	1310	9,700 psi
1 1/8 oz.	Win. 209	WSF	28.5	Win. WAA12	1365	10,700 psi
1 1/8 oz.	Win. 209	WSF	28.0	Fed. 12S3	1365	8,900 psi
1 1/8 oz.	Win. 209	WSF	29.0	Fed. 12S3	1400	9,500 psi
1 1/4 oz.	CCI 209	WSF	25.5	Win. WAA12F114	1220	9,100 psi
1 1/4 oz.	Win. 209	WSF	27.5	Win. WAA12F114	1275	9,700 psi
1 1/4 oz.	CCI 209	WSF	27.0	Win. WAA12F114	1275	10,200 psi
1 1/4 oz.	Win. 209	WSF	29.5	Win. WAA12F114	1330	10,400 psi
1 1/4 oz.	CCI 209	WSF	28.5	Win. WAA12F114	1330	10,900 psi



12 Gauge 2 3/4" Case - Federal Gold Medal® Hull

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
1 oz.	Win. 209	WST	20.5	Fed. 12S0	1180	7,400 psi
1 oz.	Win. 209	WST	22.0	Fed. 12S0	1235	8,500 psi
1 oz.	CCI 209	WST	21.0	Fed. 12S0	1235	8,500 psi
1 oz.	Win. 209	WST	23.0	Fed. 12S0	1290	9,300 psi
1 oz.	CCI 209	WST	22.5	Fed. 12S0	1290	9,500 psi
1 1/8 oz.	CCI 209	WST	19.5	Fed. 12S3	1145	8,500 psi
1 1/8 oz.	Win. 209	WST	21.0	Fed. 12S3	1200	9,500 psi
1 1/8 oz.	CCI 209	WST	21.0	Fed. 12S3	1200	10,300 psi
1 1/4 oz.	CCI 209	WSF	27.0	Fed. 12S4	1275	9,200 psi
1 1/4 oz.	Win. 209	WSF	31.5	Fed. 12S4	1330	9,500 psi
1 1/4 oz.	CCI 209	WSF	29.5	Fed. 12S4	1330	10,600 psi

20 Gauge 2 3/4" Case - AA® New HS or Compression Formed

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
7/8 oz.	Win. 209	WSF	16.5	Win. WAA20	1200	11,200 psi
7/8 oz.	Win. 209	WSF	17.0	Rem. RXP20	1200	10,700 psi
7/8 oz.	CCI 209	WSF	16.5	Win. WAA20	1200	11,300 psi
7/8 oz.	CCI 209	WSF	17.5	Rem. RXP20	1200	10,500 psi
7/8 oz.	CCI 209	WSF	16.5	Fed. 20S1	1200	11,400 psi

20 Gauge 2 3/4" Case - Remington STS®

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
7/8 oz.	Win. 209	WSF	17.0	Win. WAA20	1200	10,500 psi
7/8 oz.	Win. 209	WSF	17.5	Rem. RXP20	1200	10,600 psi
7/8 oz.	Win. 209	WSF	17.0	Fed. 20S1	1200	11,300 psi
7/8 oz.	CCI 209	WSF	17.0	Win. WAA20	1200	10,500 psi
7/8 oz.	CCI 209	WSF	17.5	Rem. RXP20	1200	9,700 psi
7/8 oz.	CCI 209	WSF	17.5	Fed. 20S1	1200	11,100 psi

Shotshell Reloading Data

AA® HS and Super-X® HS 28 Gauge with Red WAA28HS Wad

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
28 gauge 2-3/4" Case Winchester High Strength (HS)						
3/4 oz.	Win. 209	Hodgdon® HS-6™	17	Win. WAA28HS (Red)	1200	11,500 psi
28 gauge 2-3/4" Case Winchester High Strength (HS)						
3/4 oz.	Win. 209	Hodgdon® Longshot™ 14.5		Win. WAA28HS (Red)	1200	10,300 psi

AA® HS and Super-X® HS 410 with Red WAA410HS Wad

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
410 2 1/2" Case Winchester High Strength (HS)						
1/2 oz.	Win. 209	296	15.0	Win. WAA410HS (Red)	1200	10,000 psi
410 3" Case Winchester High Strength (HS)						
11/16 oz.	Win. 209	296	15.5	Win. WAA410HS (Red)	1135	9,700 psi

Compression Formed 410 AA® and Super-X® Case with White WAA41 Wad

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
410 2 1/2" Case Winchester Compression Formed						
1/2 oz.	Win. 209	296	13.5	Win. WAA41 (White)	1150	9,100 LUP
1/2 oz.	CCI 109	296	13.5	Win. WAA41 (White)	1150	8,500 LUP
1/2 oz.	Win. 209	296	14.0	Win. WAA41 (White)	1200	9,800 LUP
1/2 oz.	CCI 109	296	14.0	Win. WAA41 (White)	1200	9,100 LUP
410 3" Case Winchester Compression Formed						
11/16 oz.	Win. 209	296	13.5	Win. WAA41 (White)	1135	10,800 LUP

HS 410 and 28 Gauge Reloading (AA® & Super-X® Hulls)

Winchester® WAA410HS and WAA28HS red wads must be used for reloading the Winchester High Strength HS hull in 410 and 28 gauge. Winchester HS shotshells utilize a new and improved HS hull designed to improve reloading life. In 410 and 28 gauge, the new hull can be identified by:

- HS on Headstamp
- HS on tube stamp
- Black colored ink tube stamp positioned lengthwise

Winchester 410 and 28 gauge HS hulls must be reloaded with the red WAA410HS and WAA28HS wads and new HS hull reload data. Non Winchester HS hulls should be reloaded with the white Winchester wad WAA41 in 410 and pink Winchester wad WAA28 in 28 gauge using published reloading data for those wads.

Non HS



NEW HS



Winchester® Centerfire Rifle



Consumer Pack Metallic Component Rifle Bullets (Plastic Bag)

Caliber	Nominal Bullet Diameter	Bullet Weight	Bullet Type	Symbol	Quantity /Bag	Caliber	Nominal Bullet Diameter	Bullet Weight	Bullet Type	Symbol	Quantity /Bag
22	.224	46 gr.	HP	WB22HP46	100	7mm	.284	150 gr.	PP	WB7PP150	100
22	.224	50 gr.	PSP	WB222PSP50	100	7.62	.310	123 gr.	PP	WB762PP123	100
22	.224	55 gr.	FMJBT	WB556MC55	100	30	.308	147 gr.	FMJBT	WB762MC147	100
22	.224	55 gr.	PSP	WB223PSP55	100	30	.308	150 gr.	PP	WB30PP150	100
22	.224	64 gr.	PP	WB223PP64	100	30 (30-30)	.308	150 gr.	PPFN	WB30FN150	100
243	.243	80 gr.	PSP	WB243PSP80	100	30 (308)	.308	180 gr.	PP	WB308SP180	100
270	.277	130 gr.	PP	WB270PP130	100	44 (44-40)	.426	200 gr.	SP	WB445P200	100

NOTE: Use with reload data published for jacketed bullets of the same caliber and weight.

Consumer Pack Metallic Component Unprimed Rifle Shellcases (Plastic Bag)

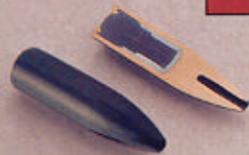
Cartridge	Symbol	Quantity/Bag	Cartridge	Symbol	Quantity/Bag	Cartridge	Symbol	Quantity/Bag
218 Bee	WSC218BU	100	270 WSM	WSC270WSMU	50	7.62x39mm	WSC762X39U	50
22 Hornet	WSC22HU	100	280 Rem.	WSC280RU	50	32-20 Win.	WSC3220U	50
22-250 Rem.	WSC2225OU	100	284 Win.	WSC284WU	50	338 Win. Mag.	WSC338WU	50
220 Swift	WSC220SU	100	7mm-08 Rem.	WSC708RU	50	348 Win.	WSC348WU	50
222 Rem.	WSC222RU	100	7mm Rem. Mag.	WSC7MMRU	50	356 Win.	WSC356U	50
223 Rem.	WSC223RU	100	7mm STW	WSC7STWU	50	358 Win.	WSC358U	50
NEW 223 WSSM	WSC223WSSU	50	7mm WSM	WSC7MMWSMU	50	375 Win.	WSC375WU	50
243 Win.	WSC243WU	100	30-30 Win.	WSC3030WU	50	375 H&H Mag.	WSC375HHU	50
NEW 243 WSSM	WSC243WSSU	50	30-06 Springfield	WSC3006SFU	50	38-40 Win.	WSC3840U	50
6mm Rem.	WSC6MMRU	100	300 WSM	WSC300WSMU	50	38-55 Win.	WSC3855WU	50
25-06 Rem.	WSC2506RU	100	300 Win. Mag.	WSC300WU	50	44-40 Win.	WSC4440WU	50
25-20 Win.	WSC2520U	50	300 H&H Mag.	WSC300HHU	50	45-70 Government	WSC4570GU	50
257 Roberts +P	WSC257PU	50	303 British	WSC303BU	50	458 Win. Mag.	WSC458WU	50
6.5x55 Swedish	WSC6555SU	50	307 Win.	WSC307U	50			
270 Win.	WSC270WU	50	308 Win.	WSC308WU	50			

Centerfire Rifle Component Bullets

Combined Technology®

Combined Technology bullets are the most technologically advanced bullets in history. The CT brand bullets combine Winchester and Nosler advanced development techniques and innovative production processes. These component bullets are available under the Nosler®/Winchester® Combined Technology brand.

Fail Safe® (FS)



Copper-alloy, coated jacket with notched hollow point cavity, combined with a lead core protected by a steel insert, delivers deep penetration and uniform, controlled expansion with virtually 100% bullet weight retention.

Note: The Combined Technology Fail Safe bullets are Moly coated, while the Supreme factory loaded Fail Safe bullets have the Lubalox® coating.

Caliber	Bullet Wt.	Caliber	Bullet Wt.
270	140 gr.	30	180 gr.
7mm	140 gr.	338	230 gr.
7mm	160 gr.	375	270 gr.
30	150 gr.	375	300 gr.
30	165 gr.		

Partition Gold® (PG)



Partition Gold Moly-Coated bullets incorporate proven Partition® and patented steel insert technology to deliver consistent and dramatic bullet expansion with maximum weight retention and deep penetration.

Caliber	Bullet Wt.	Caliber	Bullet Wt.
270	150 gr.	30	180 gr.
7mm	160 gr.	338	250 gr.
30	150 gr.	458*	300 gr.

*Same as bullet loaded in Supreme 45-70 Government

Ballistic Silvertip® (BST)



Solid base boattail design delivers excellent long range accuracy. Special Lubalox® coating reduces engraving force and barrel fouling. Special jacket contours extend range and reduce wind drift. In varmint calibers the bullet initiates rapid fragmentation. In hunting calibers the tapered jacket and harder lead core ensure proper bullet expansion.

Caliber	Bullet Wt.	Caliber	Bullet Wt.
22	40 gr.	270	130 gr.
22	50 gr.	7mm	140 gr.
243	55 gr.	30	150 gr.
243	95 gr.	30	168 gr.
25	85 gr.	30	180 gr.
25	115 gr.	338	200 gr.

Hollow Point (HP)



Standard HP features a weight rearward design enhancing bullet accuracy.

Caliber	Bullet Wt.
22	46 gr.

Soft Point (SP)



Soft point bullets are designed for rapid, controlled expansion and maximum impact.

Caliber	Bullet Wt.
44	200 gr.

Full Metal Jacket



Full metal jacket design promotes positive functioning in all actions and delivers good accuracy, no bullet expansion or barrel leading.

Caliber	Bullet Wt.
22	55 gr.
308	147 gr.

Pointed Soft Point (PSP)



Pointed bullet design retains velocity over long ranges. Soft nose initiates rapid bullet expansion. Jacket and core toughness vary according to caliber and weight of bullet.

Caliber	Bullet Wt.
22	50 gr.
22	55 gr.
243	80 gr.

Power-Point® (PP)



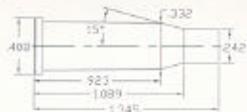
Unique soft nose jacketed design delivers maximum energy on target. Notches around jacket mouth improve upset and ensure uniform, rapid expansion.

Caliber	Bullet Wt.	Caliber	Bullet Wt.
22	40 gr.	7.62mm	123 gr.
22	64 gr.	30	150 gr.
270	130 gr.	30	150 gr.
7mm	150 gr.		(Flat Nose)
		30	180 gr.

Rifle Data

*All drawings shown are maximum cartridge dimensions and are not to scale.

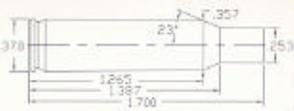
218 Bee



- Trim To Length - 1.335"
- Maximum Overall Length with Bullet Seated - 1.680"
- Nominal Bullet Diameter (Jacketed) - .224"

Offered as component brass only. No reloading data available.

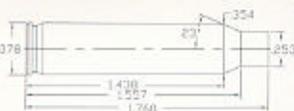
222 Remington



- Trim To Length - 1.690"
- Maximum Overall Length with Bullet Seated - 2.130"
- Nominal Bullet Diameter (Jacketed) - .224"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
45 grains SP	748	25.5	3210	41,000 C.U.P.
46 grains OPE	748	25.3	3125	38,000 C.U.P.
50 grains PSP	748	24.0	2980	38,000 C.U.P.
52 grains HPBT	748	22.6	2815	34,500 C.U.P.
53 grains HP	748	22.9	2855	36,000 C.U.P.
55 grains SP	748	24.0	2900	38,000 C.U.P.
55 grains FMJ	748	22.6	2750	33,800 C.U.P.

223 Remington

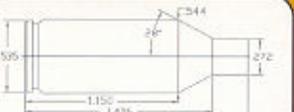


- Trim To Length - 1.750"
- Maximum Overall Length with Bullet Seated - 2.260"
- Nominal Bullet Diameter (Jacketed) - .224"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
50 grains PSP*	748	26.0	3200	40,000 C.U.P.
52 grains HPBT	748	25.5	3160	40,500 C.U.P.
53 grains HP	748	26.0	3200	43,500 C.U.P.
55 grains PSP	748	26.3	3150	39,000 C.U.P.
55 grains FMJ	748	26.2	3170	41,000 C.U.P.
62 grains FMJ	748	25.5	2985	49,200 psi
64 grains PP	748	25.0	2970	47,500 psi
69 grains HPBT	748	24.5	2870	51,500 psi

*Note: Maximum Overall Length on this load is 2.120

223 WSSM (Winchester Super Short Magnum)



- Trim To Length - 1.650"
- Maximum Overall Length with Bullet Seated - 2.360"
- Nominal Bullet Diameter (Jacketed) - .224"

Please note: Reloading data for the 223 WSSM will be available mid-2003. Please visit our website at www.winchester.com at that time for 223 WSSM reloading data and updates.

222 Remington Magnum



- Trim To Length - 1.840"
- Maximum Overall Length with Bullet Seated - 2.280"
- Nominal Bullet Diameter (Jacketed) - .224"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
50 grains PSP	748	27.2	3220	43,000 C.U.P.
52 grains HPBT	748	27.2	3270	45,500 C.U.P.
53 grains HP	748	27.2	3270	45,500 C.U.P.
55 grains PSP	748	27.2	3215	42,500 C.U.P.
55 grains FMJ	748	27.0	3215	44,000 C.U.P.

225 Winchester



- Trim To Length - 1.920"
- Maximum Overall Length with Bullet Seated - 2.500"
- Nominal Bullet Diameter (Jacketed) - .224"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
46 grains OPE	760	37.0	3650	46,000 C.U.P.
50 grains PSP	760	36.0	3570	49,000 C.U.P.
55 grains SP	760	35.8	3410	49,000 C.U.P.
55 grains FMJ	760	35.2	3480	47,500 C.U.P.

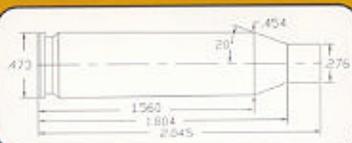
22/250 Remington



- Trim To Length - 1.902"
- Maximum Overall Length with Bullet Seated - 2.350"
- Nominal Bullet Diameter (Jacketed) - .224"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
46 grains OPE	748	36.8	3815	50,000 C.U.P.
46 grains OPE	760	41.0	3850	49,000 C.U.P.
50 grains PSP	748	35.0	3660	50,000 C.U.P.
50 grains PSP	760	39.5	3700	49,200 C.U.P.
52 grains HPBT	760	38.6	3595	46,500 C.U.P.
53 grains HP	760	38.6	3565	46,500 C.U.P.
55 grains SP	748	34.8	3500	49,500 C.U.P.
55 grains FMJ	748	35.6	3665	50,000 C.U.P.
55 grains SP	760	39.0	3675	49,000 C.U.P.
55 grains FMJ	760	39.5	3700	47,500 C.U.P.

243 Winchester



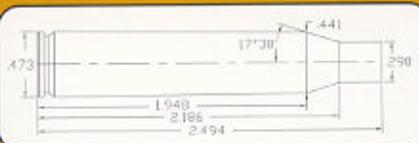
- Trim To Length - 2.035"
- Maximum Overall Length with Bullet Seated - 2.710"
- Nominal Bullet Diameter (Jacketed) - .243"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
75 grains HP	760	43.0	3320	49,000 C.U.P.
80 grains PSP	760	43.5	3280	51,000 C.U.P.
85 grains HP	760	40.5	3150	49,000 C.U.P.

243 WSSM (Winchester Super Short Magnum)

Please note: Cartridge specifications and reloading data for the 243 WSSM will be available late-2003. Please visit our website at www.winchester.com at that time for 243 WSSM reloading data and updates.

25-06 Remington



- Trim To Length - 2.484"
- Maximum Overall Length with Bullet Seated - 3.250"
- Nominal Bullet Diameter (Jacketed) - .257"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
100 grains SP	WXR	53.5	3210	58,500 psi
120 grains HPBT	WXR	50.7	2975	58,500 psi

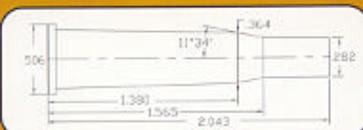
6mm Remington



- Trim To Length - 2.225"
- Maximum Overall Length with Bullet Seated - 2.825"
- Nominal Bullet Diameter (Jacketed) - .243"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
80 grains SP	760	42.8	3190	54,500 psi

25/35 Winchester



- Trim To Length - 2.033"
- Maximum Overall Length with Bullet Seated - 2.550"
- Nominal Bullet Diameter (Jacketed) - .257"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
117 grains SP	760	28.5	2200	34,500 C.U.P.

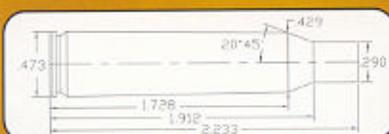
250 Savage



- Trim To Length - 1.902"
- Maximum Overall Length with Bullet Seated - 2.515"
- Nominal Bullet Diameter (Jacketed) - .257"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
60 grains OPE	748	40.8	3470	40,500 C.U.P.
60 grains OPE	760	44.0	3330	39,000 C.U.P.
87 grains SP	748	36.0	2940	41,000 C.U.P.
87 grains SP	760	39.5	2985	43,500 C.U.P.
100 grains SP	748	35.5	2820	43,500 C.U.P.
100 grains SP	760	38.8	2820	42,000 C.U.P.

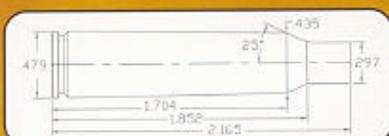
257 Roberts+P



- Trim To Length - 2.223"
- Maximum Overall Length with Bullet Seated - 2.775"
- Nominal Bullet Diameter (Jacketed) - .257"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
75 grains HP	760	47.8	3420	42,500 C.U.P.

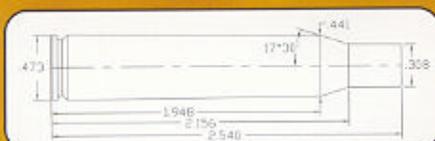
6.5x55 Swedish



- Trim To Length - 2.155"
- Maximum Overall Length with Bullet Seated - 3.150"
- Nominal Bullet Diameter (Jacketed) - .264"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
140 grains PSP	760	39.6	2405	44,100 C.U.P.
160 grains SP	760	40.0	2285	43,700 C.U.P.

270 Winchester



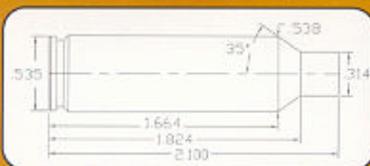
- Trim To Length - 2.530"
- Maximum Overall Length with Bullet Seated - 3.340"
- Nominal Bullet Diameter (Jacketed) - .277"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
100 grains PSP	760	56.0	3335	48,000 C.U.P.
130 grains SP	WXR	58.0	3050	59,500 psi
130 grains SP	760	52.0	2990	49,500 C.U.P.
140 grains SBT	WXR	60.0	2930	59,400 psi
150 grains SP	WXR	59.5	2845	60,300 psi
150 grains SP	760	49.0	2725	48,500 C.U.P.

Rifle Data

*All drawings shown are maximum cartridge dimensions and are not to scale.

270 WSM (Winchester Short Magnum)



- Trim To Length - 2.090"
- Maximum Overall Length with Bullet Seated - 2.860"
- Nominal Bullet Diameter (Jacketed) - .277"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
140 grains FS (CT)	WXR	63.8	3020	56,300 psi
150 grains SP	WXR	65.5	3100	61,900 psi

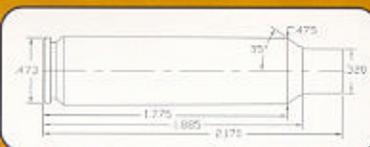
280 Remington



- Trim To Length - 2.530"
- Maximum Overall Length with Bullet Seated - 3.330"
- Nominal Bullet Diameter (Jacketed) - .284"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
120 grains SP	760	56.3	3125	57,500 psi
139 grains SP	WXR	59.2	2985	57,500 psi
145 grains SP	WXR	56.0	2865	58,000 psi
160 grains SBT	WXR	55.7	2795	58,000 psi

284 Winchester



- Trim To Length - 2.160"
- Maximum Overall Length with Bullet Seated - 2.800"
- Nominal Bullet Diameter (Jacketed) - .284"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
125 grains SP	748	50.8	3075	50,000 C.U.P.
125 grains SP	760	57.0	3180	50,000 C.U.P.
150 grains SP	748	48.5	2770	49,000 C.U.P.
150 grains SP	760	54.0	2890	49,000 C.U.P.
175 grains SP	760	49.6	2545	53,300 psi

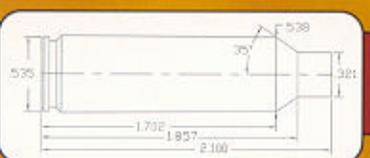
7mm Remington Magnum



- Trim To Length - 2.490"
- Maximum Overall Length with Bullet Seated - 3.290"
- Nominal Bullet Diameter (Jacketed) - .284"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
120 grains SP	WXR	68.8	3290	55,500 psi
140 grains BST (CT)	WXR	69.0	3135	58,300 psi
160 grains PG (CT)	WXR	67.5	2920	57,000 psi
160 grains FS (CT)	WXR	64.0	2910	60,100 psi
175 grains SBT	WXR	60.2	2850	57,400 psi

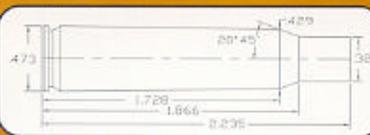
7mm WSM (Winchester Short Magnum)



- Trim To Length - 2.090"
- Maximum Overall Length with Bullet Seated - 2.860"
- Nominal Bullet Diameter (Jacketed) - .284"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
140 grains BST (CT)	WXR	70.0	3200	61,500 psi
140 grains FS (CT)	WXR	66.5	3220	63,900 psi
150 grains SP	WXR	68.0	3145	61,600 psi
160 grains FS (CT)	WXR	60.5	2915	61,700 psi

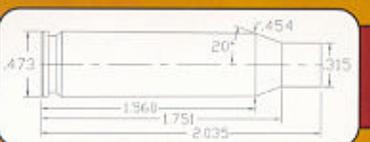
7mm Mauser



- Trim To Length - 2.225"
- Maximum Overall Length with Bullet Seated - 3.065"
- Nominal Bullet Diameter (Jacketed) - .284"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
125 grains SP	760	48.7	2885	43,500 C.U.P.
150 grains SP	760	46.5	2660	43,500 C.U.P.
175 grains SP	760	44.0	2400	44,500 C.U.P.

7mm-08 Remington



- Trim To Length - 2.025"
- Maximum Overall Length with Bullet Seated - 2.800"
- Nominal Bullet Diameter (Jacketed) - .284"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
120 grains SP	760	48.0	2990	56,600 psi
139 grains BT	760	45.4	2725	50,800 psi
150 grains SP	760	45.6	2645	49,900 psi
160 grains FS (CT)	760	41.0	2520	58,200 psi
175 grains SP	760	42.6	2515	58,300 psi
162 grains BT	760	43.0	2605	58,100 psi

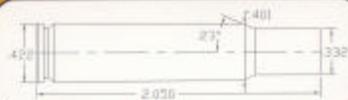
30 Carbine



- Trim To Length - 1.286"
- Maximum Overall Length with Bullet Seated - 1.680"
- Nominal Bullet Diameter (Jacketed) - .308"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
110 grains HSP	296	15.0	1980	36,000 C.U.P.

30 Remington



- Trim To Length - 2.040"
- Maximum Overall Length with Bullet Seated - 2.525"
- Nominal Bullet Diameter (Jacketed) - .308"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
170 grains SP	748	30.0	2000	34,000 C.U.P.
170 grains SP	760	35.0	2095	35,000 C.U.P.

303 Savage



- Trim To Length - 2.010"
- Maximum Overall Length with Bullet Seated - 2.520"
- Nominal Bullet Diameter (Jacketed) - .311"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
170 grains SP	748	33.5	2090	32,000 C.U.P.

303 British



- Trim To Length - 2.212"
- Maximum Overall Length with Bullet Seated - 2.915"
- Nominal Bullet Diameter (Jacketed) - .311"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
123 grains SP	748	47.3	2720	34,000 psi
150 grains PSP	748	45.4	2565	37,700 psi
180 grains SP	748	39.8	2345	46,600 psi
180 grains SP	760	46.3	2435	46,500 psi

30/30 Winchester



- Trim To Length - 2.028"
- Maximum Overall Length with Bullet Seated - 2.550"
- Nominal Bullet Diameter (Jacketed) - .308"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
110 grains HSP	296	18.7	2155	36,000 C.U.P.
110 grains HSP	748	36.8	2595	33,000 C.U.P.
150 grains SP	748	34.5	2310	36,000 C.U.P.
150 grains SP	760	35.9	2090	30,000 C.U.P.
170 grains SP	748	32.0	2145	36,000 C.U.P.
170 grains SP	760	33.6	1975	30,000 C.U.P.

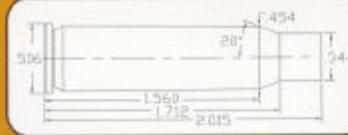
300 Savage



- Trim To Length - 1.860"
- Maximum Overall Length with Bullet Seated - 2.600"
- Nominal Bullet Diameter (Jacketed) - .308"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
110 grains HSP	748	45.2	2930	41,500 C.U.P.
150 grains SP	748	42.0	2600	41,000 C.U.P.
150 grains SP	760	45.5	2580	42,000 C.U.P.
150 grains FS (CT)	748	40.9	2505	42,000 psi
165 grains FS (CT)	748	39.5	2340	39,900 psi
180 grains FS (CT)	748	38.8	2350	45,600 psi
180 grains SP	748	40.0	2375	43,000 C.U.P.
180 grains SP	760	44.5	2410	41,000 C.U.P.

307 Winchester



- Trim To Length - 2.005"
- Maximum Overall Length with Bullet Seated - 2.560"
- Nominal Bullet Diameter (Jacketed) - .308"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
130 grains SP	748	45.2	2720	38,000 C.U.P.
130 grains SP	760	45.2	2470	33,000 C.U.P.
150 grains SP	748	44.0	2625	44,500 C.U.P.
150 grains SP	760	44.0	2305	34,000 C.U.P.
170 grains SP	748	41.2	2455	44,000 C.U.P.
170 grains SP	760	41.2	2260	39,000 C.U.P.

308 Winchester



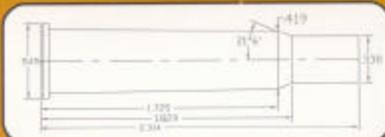
- Trim To Length - 2.005"
- Maximum Overall Length with Bullet Seated - 2.800"
- Nominal Bullet Diameter (Jacketed) - .308"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
110 grains SP	748	53.2	3300	46,000 C.U.P.
125 grains SP	748	52.0	3175	50,000 C.U.P.
147 grains FMJBT	748	45.2	2730	45,500 psi
147 grains FMJBT	760	51.8	2768	49,900 psi
150 grains SP	748	48.5	2865	48,000 C.U.P.
150 grains SP	760	50.1	2700	40,500 C.U.P.
150 grains FS (CT)	748	43.0	2540	45,100 psi
165 grains FS (CT)	748	42.0	2400	43,800 psi
180 grains FMJBT	748	45.5	2600	50,500 C.U.P.
180 grains SP	748	46.5	2610	48,500 C.U.P.
180 grains FMJBT	760	46.6	2535	43,000 C.U.P.
180 grains SP	760	48.0	2580	43,000 C.U.P.
180 grains FS (CT)	748	41.3	2420	54,900 psi
190 grains HPBT	748	42.0	2445	49,000 C.U.P.
200 grains SP	748	43.0	2435	50,000 C.U.P.
200 grains SP	760	45.7	2430	46,500 C.U.P.

Rifle Data

*All drawings shown are maximum cartridge dimensions and are not to scale.

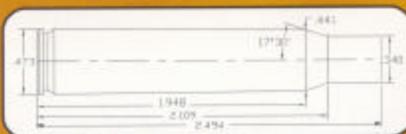
30/40 Krag



- Trim To Length - 2.304"
- Maximum Overall Length with Bullet Seated - 3.089"
- Nominal Bullet Diameter (Jacketed)- .308"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
180 grains SP	760	44.5	2380	37,000 C.U.P.
220 grains SP	760	40.5	2070	36,000 C.U.P.

30/06 Springfield



- Trim To Length - 2.484"
- Maximum Overall Length with Bullet Seated - 3.340"
- Nominal Bullet Diameter (Jacketed)- .308"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
110 grains PSP	748	52.7	3230	47,000 C.U.P.
110 grains PSP	760	59.0	3210	45,500 C.U.P.
125 grains SP	748	51.0	3060	46,000 C.U.P.
125 grains SP	760	57.8	3125	45,000 C.U.P.
150 grains SP	748	48.0	2810	46,000 C.U.P.
150 grains SP	760	54.0	2900	48,000 C.U.P.
150 grains FS (CT)	760	55.1	2810	52,100 psi
165 grains FS (CT)	760	54.6	2690	53,300 psi
165 grains PG (CT)	WXR	60.0	2755	51,300 psi
168 grains HP	760	52.5	2665	47,000 C.U.P.
180 grains PG (CT)	WXR	60.0	2675	51,500 psi
180 grains FS (CT)	WXR	59.0	2670	52,000 psi
180 grains FMJBT	748	44.0	2530	47,000 C.U.P.
180 grains SP	748	45.0	2540	48,500 C.U.P.
180 grains FMJBT	760	52.5	2700	48,500 C.U.P.
180 grains SP	760	53.0	2725	50,000 C.U.P.
180 grains FS (CT)	760	51.4	2625	57,100 psi
190 grains HPBT	WXR	56.6	2600	53,400 psi
190 grains HPBT	760	52.0	2605	47,500 C.U.P.
200 grains SBT	WXR	55.3	2540	55,300 psi
200 grains SP	760	49.0	2470	46,000 C.U.P.
220 grains SP	760	49.0	2370	48,000 C.U.P.

300 Winchester Magnum



- Trim To Length - 2.610"
- Maximum Overall Length with Bullet Seated - 3.340"
- Nominal Bullet Diameter (Jacketed) - .308"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
165 grains SP	760	67.1	2995	60,800 psi
168 grains BST (CT)	WXR	77.0	3130	58,000 psi
180 grains FS (CT)	WXR	77.0	2970	56,400 psi
180 grains PG (CT)	WXR	76.0	2965	54,800 psi
200 grains SBT	WXR	71.4	2800	58,700 psi

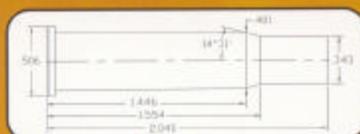
300 WSM (Winchester Short Magnum)



- Trim To Length - 2.090"
- Maximum Overall Length with Bullet Seated - 2.860"
- Nominal Bullet Diameter (Jacketed) - .308"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
150 grains BST (CT)	760	71.0	3250	60,000 psi
165 grains FS (CT)	760	68.5	3130	63,300 psi
168 grains BST (CT)	760	69.8	3090	60,300 psi
180 grains SP	760	66.9	2960	60,500 psi
180 grains FS (CT)	760	68.0	2940	60,200 psi

32 Winchester Special



- Trim To Length - 2.035"
- Maximum Overall Length with Bullet Seated - 2.565"
- Nominal Bullet Diameter (Jacketed) - .321"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
170 grains SP	748	36.2	2240	32,500 C.U.P.

8mm Mauser



- Trim To Length - 2.235"
- Maximum Overall Length with Bullet Seated - 3.250"
- Nominal Bullet Diameter (Jacketed) - .322"

Caliber Bullet Weight & Type	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
170 grains SP	748	46.0	2410	37,000 C.U.P.
170 grains SP	760	48.0	2240	32,000 C.U.P.

338 Winchester Magnum



- Trim To Length - 2.490"
- Maximum Overall Length with Bullet Seated - 3.340"
- Nominal Bullet Diameter (Jacketed) - .338"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
200 grains SP	760	70.0	2900	51,000 C.U.P.
215 grains SBT	WXR	76.0	2860	60,200 psi
230 grains FS (CT)	WXR	73.0	2700	57,300 psi
250 grains PG (CT)	WXR	75.0	2640	57,000 psi
250 grains SP	760	63.2	2545	50,500 C.U.P.
300 grains SP	760	59.8	2285	51,500 C.U.P.

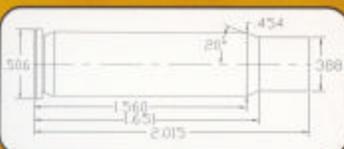
35 Remington



- Trim To Length - 1.910"
- Maximum Overall Length with Bullet Seated - 2.525"
- Nominal Bullet Diameter (Jacketed) - .358"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
200 grains SP	748	39.0	2130	33,000 C.U.P.

356 Winchester



- Trim To Length - 2.005"
- Maximum Overall Length with Bullet Seated - 2.560"
- Nominal Bullet Diameter (Jacketed) - .358"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
220 grains SP	760	42.1	1805	27,500 C.U.P.
220 grains SP	748	42.1	2015	31,000 C.U.P.

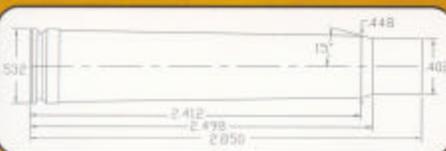
358 Winchester



- Trim To Length - 2.005"
- Maximum Overall Length with Bullet Seated - 2.780"
- Nominal Bullet Diameter (Jacketed) - .358"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
200 grains SP	748	50.6	2500	50,000 C.U.P.
250 grains SP	748	46.2	2250	50,500 C.U.P.

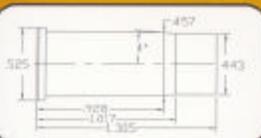
375 H&H Magnum



- Trim To Length - 2.840"
- Maximum Overall Length with Bullet Seated - 3.600"
- Nominal Bullet Diameter (Jacketed) - .375"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
270 grains SP	760	77.5	2660	51,000 C.U.P.
300 grains SP	760	77.5	2560	51,500 C.U.P.
300 grains FMJ	760	77.5	2560	51,500 C.U.P.

44/40 Winchester



- Trim To Length - 1.300"
- Maximum Overall Length with Bullet Seated - 1.592"
- Nominal Bullet Diameter (Jacketed) - .426"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
200 grains Lead	231	6.7	1100	12,000 C.U.P.
225 grains Lead	231	5.8	1000	10,000 psi

458 Winchester Magnum



- Trim To Length - 2.495"
- Maximum Overall Length with Bullet Seated - 3.340"
- Nominal Bullet Diameter (Jacketed) - .458"

Caliber	Charge Powder	Weight (grs.)	Velocity (fps)	Pressure
500 grains FMJ	748	73.0	2040	39,000 C.U.P.
510 grains SP	748	75.0	2065	41,000 C.U.P.

Winchester® Centerfire Handgun



Consumer Pack Metallic Component Handgun Bullets (Plastic Bag)

Caliber	Nominal Bullet Diameter	Bullet Weight	Bullet Type	Symbol	Quantity /Bag
380	.356	95 gr.	FMJ	WB380MC95	100
38	.356	130 gr.	FMJ	WB38MC130	100
9mm	.355	115 gr.	STHP	WB9ST115	100
9mm	.355	115 gr.	FMJ-Flat Base	WB9FB115	100
9mm	.355	115 gr.	FMJ-Hollow Base	WB9MC115	100
9mm	.355	115 gr.	JHP-Notched	WB9JHP115	100
9mm	.355	147 gr.	STHP	WB9ST147	100
9mm	.355	147 gr.	JHP-Notched	WB9JHP147	100
9mm	.355	124 gr.	FMJ-Flat Base	WB9MC124	100
38/357	.357	110 gr.	JHP-Notched	WB38JHP110	100
38/357	.357	125 gr.	JHP-Notched	WB38JHP125	100
38/357	.357	145 gr.	STHP	WB357ST145	100
38/357	.357	158 gr.	JHP-Notched	WB357HP158	100
40/10mm	.400	155 gr.	STHP	WB40ST155	100
40/10mm	.400	165 gr.	Truncated Cone	WB40TC165	100
40/10mm	.400	175 gr.	STHP	WB40ST175	100
40/10mm	.400	180 gr.	Truncated Cone	WB40TC180	100
40/10mm	.400	180 gr.	JHP-Notched	WB40JHP180	100
44	.430	210 gr.	STHP	WB44ST210	100
44	.430	240 gr.	HSP-Notched	WB44HSP240	100
45	.451	230 gr.	FMJ	WB45MC230	100
45	.451	230 gr.	JHP-Notched	WB45JHP230	100

SILVERTIP® Hollow Point (STHP) Component Handgun Bullets (Boxes)

Caliber	Nominal Bullet Diameter	Bullet Wt. Grs.	Bullet Type	Symbol	Quantity/Box
38/357	.357"	145	STHP	SHP357	100
9mm	.355"	115	STHP	SHP9	100
9mm	.355"	147	STHP	SHP9A	100
40/10mm	.400"	155	STHP	SHP40	100
40/10mm	.400"	175	STHP	SHP10	100
44	.430"	210	STHP	SHP44	100

NOTE: Use with reload data published for jacketed bullets of the same caliber and weight.

Consumer Pack Metallic Component Unprimed Handgun Shellcases (Plastic Bag)

Cartridge	Symbol	Quantity/Bag
380 Automatic	WSC380AU	100
30 Luger	WSC30LU	100
9mm Luger	WSC9U	100
38 Special	WSC38SU	100
38 Super Auto	WSC38AS+U	100
9x23mm	WSC923WU	100
357 Sig	WSC357SIGU	100
357 Magnum	WSC357MU	100
40 Smith & Wesson	WSC40SWU	100
10mm	WSC10MMU	100
41 Rem. Mag.	WSC41RMU	100
44 Smith & Wesson	WSC44SWU	100
44 Rem. Mag.	WSC44MU	100
45 Automatic	WSC45AU	100
45 Cal.	WSC45CUI	100

Centerfire Handgun Component Bullets

Partition HG™



- Proven Partition Technology
- Consistent, Dramatic Bullet Expansion
- Deep Penetration Regardless of Barrel Length
- Maximum Weight Retention

These component bullets are available under the Nosler Partition HG™ brand

Caliber	Bullet Wt.
38/357	180 gr.
44	250 gr.
45	260 gr.
45	300 gr.

Silvertip® Hollow Point (STHP)



- Rapid Energy Deposit
- Positive Functioning
- Uniform Expansion

Caliber	Bullet Wt.	Caliber	Bullet Wt.
38/357	145 gr.	40/10mm	155 gr.
9mm	115 gr.	40/10mm	175 gr.
9mm	147 gr.	44	210 gr.

Full Metal Jacket (FMJ)



- Positive Functioning
- No Expansion
- Good Accuracy
- No Barrel Leading

Caliber	Bullet Wt.	Caliber	Bullet Wt.
380	95 gr.	9mm	124 gr. (Flat Base)
38	130 gr.	40/10mm	165 gr. (Truncated Cone)
9mm	115 gr. (Flat Base)	40/10mm	180 gr. (Truncated Cone)
9mm	115 gr. (Hollow Base)	45	230 gr.

Jacketed Soft/Hollow Point (JSP/JHP)



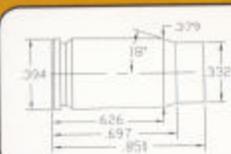
- Positive Expansion
- Proven Accuracy
- Notched Jacket

Caliber	Bullet Wt.	Caliber	Bullet Wt.
9mm	115 gr.	44	240 gr.
9mm	147 gr.	38/357	158 gr.
38/357	110 gr.	40/10mm	180 gr.
38/357	125 gr.	45	230 gr.

Handgun Data

*All drawings shown are maximum cartridge dimensions and are not to scale.

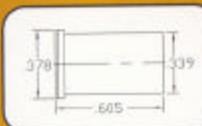
30 Luger



- Trim To Length - .845"
- Max. Overall Length with Bullet Seated - 1.175"
- Nominal Bullet Diameter (Jacketed) - .309"
- Barrel Length - 4.5"

Caliber	Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	Velocity (fps)	Pressure
93 gr. FMJ	231	-	-	-	-	4.2	1085	25,500 C.U.P.

32 S&W



- Trim To Length - .600"
- Max. Overall Length with Bullet Seated - .930"
- Nominal Bullet Diameter (Lead) - .314"
- Barrel Length - 3"

Caliber	Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	Velocity (fps)	Pressure
85 gr. Lead	231	-	-	-	-	1.4	595	9,500 C.U.P.

32 Auto



- Trim To Length - .672"
- Max. Overall Length with Bullet Seated - .984"
- Nominal Bullet Diameter (Jacketed) - .312"
- Barrel Length - 4"

Caliber	Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	Velocity (fps)	Pressure
71 gr. FMJ	231	-	-	-	-	2.5	865	14,000 C.U.P.

Handgun Data

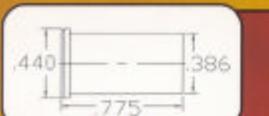
32 S&W Long



- Trim To Length - .915"
- Max. Overall Length with Bullet Seated - 1.280"
- Nominal Bullet Diameter (Jacketed) - .314"
- Barrel Length - 4"

Caliber	Starting Chg.	Velocity	Max Chg. Velocity				
Bullet Wt. & Type	Powder	Wt. (grs.)	(fps)	Pressure	Wt. (grs.)	(fps)	Pressure
98 gr. Lead	231	-	-	-	2.4	765	11,000C.U.P.

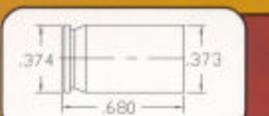
38 S&W



- Trim To Length - .765"
- Max. Overall Length with Bullet Seated - 1.180"
- Nominal Bullet Diameter (Lead) - .358"
- Barrel Length - 4"

Caliber	Starting Chg.	Velocity	Max Chg. Velocity				
Bullet Wt. & Type	Powder	Wt. (grs.)	(fps)	Pressure	Wt. (grs.)	(fps)	Pressure
145 gr. Lead	231	-	-	-	2.6	675	11,500C.U.P.

380 Auto



- Trim To Length - .677"
- Max. Overall Length with Bullet Seated - .984"
- Nominal Bullet Diameter (Jacketed) - .356"
- Barrel Length - 3.75"

Caliber	Starting Chg.	Velocity	Max Chg. Velocity				
Bullet Wt. & Type	Powder	Wt. (grs.)	(fps)	Pressure	Wt. (grs.)	(fps)	Pressure
95 gr. FMJ	231	-	-	-	3.2	860	15,000C.U.P.

38 Auto



- Trim To Length - .895"
- Max. Overall Length with Bullet Seated - 1.280"
- Nominal Bullet Diameter (Jacketed) - .356"
- Barrel Length - 5"

Caliber	Starting Chg.	Velocity	Max Chg. Velocity				
Bullet Wt. & Type	Powder	Wt. (grs.)	(fps)	Pressure	Wt. (grs.)	(fps)	Pressure
130 gr. FMJ	231	-	-	-	4.4	875	20,000C.U.P.

38 Super Auto+P



- Trim To Length - .895"
- Max. Overall Length with Bullet Seated - 1.280"
- Nominal Bullet Diameter (Jacketed) - .356"
- Barrel Length - 5"

Caliber	Starting Chg.	Velocity	Max Chg. Velocity				
Bullet Wt. & Type	Powder	Wt. (grs.)	(fps)	Pressure	Wt. (grs.)	(fps)	Pressure
115 gr. JHP	231	5.0	1080	25,500psi	5.9	1230	34,200psi
	WSF	6.0	1185	28,100psi	7.1	1320	34,400psi
124 gr. FMJ	231	4.9	1060	27,500psi	5.7	1185	34,600psi
	WSF	5.2	1060	25,800psi	6.6	1245	34,600psi
130 gr. FMJ	231	4.8	1020	26,300psi	5.6	1145	34,800psi
	WSF	5.4	1065	26,100psi	6.3	1200	34,400psi
147 gr. JHP	231	4.4	930	28,500psi	4.9	1010	34,900psi
	WSF	4.8	960	27,300psi	5.6	1070	34,400psi
160 gr. Lead	231	3.5	860	27,300psi	4.2	955	34,400psi
	WSF	3.8	875	25,300psi	4.9	1010	34,600psi

38 Special



- Trim To Length - 1.149"
- Max. Overall Length with Bullet Seated - 1.550"
- Nominal Bullet Diameter (Jacketed) - .358"
- Barrel Length - 4"

Caliber	Starting Chg.	Velocity	Max Chg. Velocity				
Bullet Wt. & Type	Powder	Wt. (grs.)	(fps)	Pressure	Wt. (grs.)	(fps)	Pressure
148 gr. Lead HBWC	231	2.9	690	12,400psi	3.3	770	16,100psi
	WST	2.5	680	13,000psi	2.8	735	16,000psi
148 gr. Lead BBWC	231	3.0	690	13,600psi	3.4	760	16,400psi
	WST	2.5	665	13,100psi	2.7	700	16,300psi
158 gr. Lead	231	(6-1/8" barrel)	-	-	4.1	900	16,000psi
	(cowboy load)	-	-	-	-	-	-
158 gr. SWC	231	4.0	745	12,600psi	4.5	830	15,800psi
	WST	3.3	705	12,800psi	3.7	770	15,700psi

38 Special+P



- Trim To Length - 1.149"
- Max. Overall Length with Bullet Seated - .984"
- Nominal Bullet Diameter (Jacketed) - .358"
- Barrel Length - 4"

Caliber	Starting Chg.	Velocity	Max Chg. Velocity				
Bullet Wt. & Type	Powder	Wt. (grs.)	(fps)	Pressure	Wt. (grs.)	(fps)	Pressure
110 gr. JHP	231	5.3	935	14,700psi	5.7	1015	17,600psi
125 gr. JHP	231	4.8	840	14,100psi	5.3	935	17,200psi
140 gr. JHP	231	4.3	685	13,900psi	4.8	785	17,200psi
158 gr. JHP	231	4.0	635	13,900psi	4.4	720	17,200psi
158 gr. LSWC	231	-	-	-	4.7	860	17,100psi
	WST	-	-	-	3.9	800	17,300psi

*All drawings shown are maximum cartridge dimensions and are not to scale.

357 Magnum



- Trim To Length - 1.285"
- Max. Overall Length with Bullet Seated - 1.590"
- Nominal Bullet Diameter (Jacketed) - .358"
- Barrel Length - 8.375"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	(fps)	Pressure
110 gr. JHP	231	-	-	-	8.8	1575	42,500C.U.P.
125 gr. JHP	231	-	-	-	8.1	1460	42,500C.U.P.
125 gr. JHP	296*	-	-	-	18.5	1800	32,500C.U.P.
145 gr. STHP	296*	-	-	-	17.5	1640	31,600C.U.P.
148 gr. WC	231	-	-	-	3.4	880	19,500C.U.P.
150 gr. Lead	231	-	-	-	6.9	1305	42,000C.U.P.
150 gr. Lead	296*	-	-	-	14.0	1510	32,000C.U.P.
158 gr. JHP	231	-	-	-	6.9	1260	42,000C.U.P.
158 gr. Lead	231	-	-	-	6.7	1275	42,500C.U.P.
158 gr. Lead	296*	-	-	-	14.5	1560	38,000C.U.P.
158 gr. JHP	296*	-	-	-	16.6	1610	39,500C.U.P.
170 gr. FMJ	296*	-	-	-	14.3	1390	42,000C.U.P.
200 gr. Lead	231	-	-	-	5.5	1060	42,500C.U.P.
200 gr. Lead	296*	-	-	-	12.4	1335	35,000C.U.P.

*See Note on page 31

357 Remington Maximum

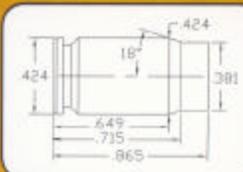
Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	(fps)	Pressure
180 gr. FMJ	296*	-	-	-	19.0	1670	46,900C.U.P.

*See Note on page 31



- Trim To Length - 1.600"
- Max. Overall Length with Bullet Seated - 1.990"
- Nominal Bullet Diameter (Jacketed) - .358"
- Barrel Length - 8.375"

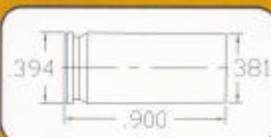
357 Sig



- Trim To Length - .860"
- Maximum Overall Length with Bullet Seated - 1.140"
- Nominal Bullet Diameter (Jacketed) - .358"
- Barrel Length - 4"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	(fps)	Pressure
125 gr. FMC-FN WSF	-	-	-	-	7.1	1260	33,800psi

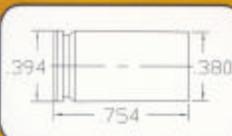
9x23mm Winchester



- Trim To Length - .895"
- Maximum Overall Length with Bullet Seated - 1.300"
- Nominal Bullet Diameter (Jacketed) - .355"
- Barrel Length - 4"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	(fps)	Pressure
125 gr. JHP	231	5.3	1180	38,000psi	6.3	1300	46,000psi

9mm Luger

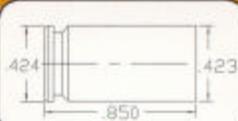


- Trim To Length - .751"
- Maximum Overall Length with Bullet Seated - 1.169"
- Nominal Bullet Diameter (Jacketed) - .355"
- Barrel Length - 4"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	(fps)	Pressure
95 gr. FMJ	231	4.6	1145	27,100psi	5.1	1235	32,600psi
114 gr. Lead CCN	231	3.8	1010	26,900psi	4.2	1115	32,000psi
115 gr. FMJ	231	4.4	1045	25,900psi	4.9	1135	32,600psi
	WSF	4.9	1060	24,200psi	5.7	1195	31,900psi
115 gr. JHP	231	4.3	1010	25,800psi	4.8	1120	32,100psi
	WSF	5.2	1095	28,700psi	5.7	1165	32,100psi
124 gr. Lead RN	231	3.3	910	23,800psi	4.0	1035	32,900psi
	WSF	4.0	945	22,200psi	4.7	1055	27,300psi
124 gr. FMJ	231	4.2	1005	28,800psi	4.5	1060	32,700psi
	WSF	4.7	1015	27,700psi	5.3	1115	32,700psi
147 gr. Lead CFP	231	3.3	865	29,000psi	3.5	905	32,100psi
	WSF	3.7	905	28,500psi	4.1	965	32,800psi
147 gr. FMJ	WSF	3.9	895	28,400psi	4.3	950	32,300psi
147 gr. JHP	WSF	4.0	900	30,100psi	4.3	935	32,300psi

Handgun Data

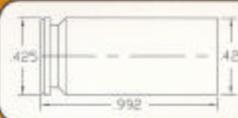
40 S&W



- Trim To Length - .847"
- Max. Overall Length with Bullet Seated - 1.135"
- Nominal Bullet Diameter (Jacketed) - .400"
- Barrel Length - 4"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Wt. (grs.)	Velocity (fps)	Pressure
150 gr. JHP	231	5.2	970	21,800psi	6.3	1150	33,200psi
	WST	5.5	990	23,900psi	6.3	1050	27,100psi
	WSF	6.7	1100	26,200psi	7.7	1200	33,200psi
155 gr. JHP	231	5.1	950	23,200psi	6.0	1100	33,200psi
	WST	5.5	980	24,000psi	6.0	1040	27,900psi
	WSF	6.0	1010	21,600psi	7.3	1180	33,200psi
170 gr. JHP	231	4.5	860	24,000psi	5.3	1000	33,200psi
	WST	4.2	830	22,100psi	5.5	970	30,100psi
	WSF	5.5	920	23,300psi	6.5	1080	33,200psi
170 gr. Lead	231	4.0	850	22,800psi	5.2	1030	33,200psi
	WST	4.0	870	22,800psi	5.0	970	30,000psi
	WSF	5.2	950	23,500psi	6.2	1090	33,200psi
180 gr. JHP	231	4.0	790	23,700psi	5.0	950	33,200psi
	WST	4.0	780	21,800psi	5.0	900	28,100psi
	WSF	5.0	860	22,900psi	6.2	1040	33,200psi
200 gr. FMJ	231	4.0	750	26,600psi	4.7	850	33,200psi
	WST	3.8	740	24,200psi	4.5	810	29,900psi
	WSF	4.9	840	25,600psi	5.7	930	33,200psi
200 gr. Lead	231	3.0	700	21,100psi	4.0	850	33,200psi
	WST				3.5	760	25,200psi
	WSF	3.9	785	21,800psi	5.0	920	33,200psi

10MM Auto



- Trim To Length - .989"
- Max. Overall Length with Bullet Seated - 1.260"
- Nominal Bullet Diameter (Jacketed) - .400"
- Barrel Length - 5"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Wt. (grs.)	Velocity (fps)	Pressure
150 gr. JHP	231	6.0	1090	29,000psi	7.0	1210	35,600psi
	WST	5.5	1080	30,200psi	7.0	1190	34,000psi
	WSF	6.5	1090	24,700psi	8.1	1310	35,600psi
155 gr. JHP	231	5.8	1040	23,300psi	7.3	1250	35,600psi
	WST	5.0	1000	23,100psi	8.0	1220	31,900psi
	WSF	6.8	1100	23,000psi	8.4	1320	35,600psi
170 gr. Lead	231	4.8	980	26,400psi	5.6	1100	35,600psi
	WST				5.0	1020	32,100psi
	WSF	5.5	1020	25,700psi	6.6	1170	35,600psi
170 gr. JHP	231	4.7	880	20,600psi	6.3	1120	35,600psi
	WST	4.5	940	26,200psi	5.5	1020	29,500psi
	WSF	6.0	1020	24,000psi	7.5	1210	35,600psi
180 gr. JHP	231	5.2	950	29,600psi	5.8	1050	35,600psi
	296*				12.6	990	22,400psi
	WST	5.0	950	30,500psi	5.5	1010	35,200psi
	WSF	5.7	950	25,000psi	7.1	1150	35,600psi
190 gr. FMJ	231	4.6	800	22,000psi	5.9	1030	35,600psi
	296*				12.6	970	22,200psi
	WST				4.5	850	26,700psi
	WSF	5.5	880	22,000psi	7.1	1120	35,600psi
200 gr. Lead	231	4.2	870	24,200psi	5.5	1030	35,600psi
	WST	3.8	830	23,900psi	5.0	940	32,400psi
	WSF	5.0	920	23,500psi	6.3	1080	35,600psi
200 gr. FMJ	231	4.6	840	24,600psi	5.6	1000	35,600psi
	296*				11.6	940	23,600psi
	WST				4.6	890	35,600psi
	WSF	5.2	880	26,200psi	6.2	1020	35,600psi

*See Note on page 31

41 Remington Magnum



- Trim To Length - 1.285"
- Max. Overall Length with Bullet Seated - 1.590"
- Nominal Bullet Diameter (Jacketed) - .410"
- Barrel Length - 8.375"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Wt. (grs.)	Velocity (fps)	Pressure
210 gr. Lead	231	-	-	-	7.4	1125	28,000 C.U.P.
210 gr. JSP	231	-	-	-	8.8	1220	38,000 C.U.P.
	296*	-	-	-	20.4	1460	24,000 C.U.P.

*See Note on page 31

*All drawings shown are maximum cartridge dimensions and are not to scale.

44 S&W Special



- Trim To Length - 1.152"
- Max. Overall Length with Bullet Seated - 1.615"
- Nominal Bullet Diameter (Lead) - .430"
- Barrel Length - 6.5"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	(fps)	Pressure
246 gr. Lead	231	-	-	-	5.4	795	12,500C.U.P.
240 gr. Lead	231(cowboy load-6-1/2" barrel)	-	-	-	4.9	800	13,000C.U.P.

44 Remington Magnum

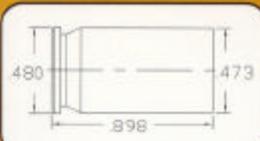


- Trim To Length - 1.280"
- Max. Overall Length with Bullet Seated - 1.610"
- Nominal Bullet Diameter (Jacketed) - .430"
- Barrel Length - 6.5"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	(fps)	Pressure
210 gr. JHP	231	-	-	-	11.7	1385	38,000C.U.P.
240 gr. Lead SWC	231	-	-	-	11.0	1285	38,000C.U.P.
	296*	-	-	-	25.0	1560	37,500C.U.P.
240 gr. HSP	231	-	-	-	11.2	1280	38,000C.U.P.
	296	-	-	-	24.0	1430	38,000C.U.P.

*See Note on page 31

45 Auto



- Trim To Length - .895"
- Max. Overall Length with Bullet Seated - 1.275"
- Nominal Bullet Diameter (Jacketed) - .452"
- Barrel Length - 5"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	(fps)	Pressure
180 gr. Lead	231	5.3	885	15,300psi	6.3	1020	20,000psi
Cast SWC	WST	4.6	880	16,200psi	5.4	1000	20,000psi
	WSF	6.6	960	15,900psi	7.4	1060	20,000psi
185 gr. JSWC	231	5.1	760	13,300psi	6.1	920	18,600psi
	WST	4.3	745	13,400psi	5.3	890	19,000psi
	WSF	6.0	775	12,800psi	7.0	950	17,600psi
185 gr. JHP	231	6.2	915	17,200psi	6.8	990	19,500psi
	WST	5.1	875	17,100psi	5.6	935	19,800psi
	WSF	7.2	920	15,600psi	7.9	1035	19,700psi
200 gr. Lead	231	4.8	800	14,900psi	5.5	910	19,600psi
Cast SWC	WST	4.4	830	15,400psi	5.1	910	19,900psi
	WSF	6.0	870	15,200psi	6.7	970	19,400psi
200 gr. FPJ	231	5.4	815	16,200psi	6.1	920	19,900psi
	WST	4.7	825	16,400psi	5.3	890	20,000psi
	WSF	6.5	870	15,500psi	7.3	980	19,400psi
200 gr. JHP	231	5.3	830	16,200psi	5.8	905	19,500psi
	WST	4.7	820	16,900psi	5.2	885	19,900psi
	WSF	6.6	870	15,500psi	7.1	970	19,500psi
230 gr. Lead RN	231	4.5	765	15,500psi	5.1	870	19,800psi
	WST	4.0	750	16,200psi	4.5	805	20,100psi
	WSF	5.5	820	15,200psi	6.2	910	19,600psi
230 gr. FMJ	231	4.9	695	14,900psi	5.7	830	19,200psi
	WST	4.1	710	15,500psi	4.9	800	19,900psi
	WSF	5.7	755	14,900psi	6.6	885	19,200psi
230 gr. JHP	231	4.8	740	18,000psi	5.1	785	20,000psi
	WSF	5.7	780	16,500psi	6.1	850	19,600psi

45 Colt



- Trim To Length - 1.280"
- Max. Overall Length with Bullet Seated - 1.600"
- Nominal Bullet Diameter (Lead) - .455"
- Barrel Length - 5.5"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	(fps)	Pressure
255 gr. Lead	231	-	-	-	7.1	875	13,000C.U.P.
250 gr. Lead	231(cowboy load-5-1/2" barrel)	-	-	-	5.5	750	10,000psi

454 Casull®



- Trim To Length - 1.380"
- Max. Overall Length with Bullet Seated - 1.765"
- Nominal Bullet Diameter (Jacketed) - .452"
- Barrel Length - 5.75"

Caliber Bullet Wt. & Type	Powder	Starting Chg. Wt. (grs.)	Velocity (fps)	Pressure	Max Chg. Velocity Wt. (grs.)	(fps)	Pressure
260 gr. JSP	296*	-	-	-	34.0	1830	40,000psi
	296*	-	-	-	36.0	1965	50,000psi
300 gr. JSP	296*	-	-	-	29.5	1600	38,000psi
	296*	-	-	-	31.5	1750	50,000psi

*See Note on page 31

Reloading Notes, Warnings

Reloading Notes, Warnings and Critical Information

BEFORE USING DATA

The Winchester® Reloading Components Manual contains certain suggested recipes for reloading or handloading ammunition using the Winchester® powder and components offered for sale through the Manual. It is not, and should not be used as, an instruction manual for reloading or handloading ammunition. The data in this booklet for reloading shotshell and metallic cartridge ammunition supersede all previous data published by Winchester.

Winchester suggested loads are based on results obtained in our laboratory under carefully controlled conditions. The data shown in this booklet have been verified by tests fired in our laboratory under controlled conditions and found to produce safe cartridges. **These suggested loads are offered without fee as an aid to handloaders, to be employed at their own discretion and risk. Since Winchester has no control over the circumstances of loading, the methods and procedures used or the condition or choice of firearms and components used and assembled, Winchester assumes no liability for the results obtained. Only those trained and familiar with reloading methodology and all safety precautions and who observe conservative practices in reloading operations should undertake reloading and handloading of ammunition.**

Always wear eye protection when handloading ammunition or handling any components.

For the present, this data book represents all the applications of currently manufactured propellants Winchester has been able to qualify. All of Winchester's suggested data is consistent with the Sporting Arms and Ammunition Manufacturers Institute's suggested recommended loading limit.

Where recipes contained in this booklet list specific components, no changes or substitutions for these components can be made, except for substitutions of bullets of the same type, diameter, and weight from reputable manufacturers, which may be made without risking significant changes in the level of ballistic performance of the loads shown.

All pressure data listed as psi has been measured with the latest Piezo electric system showing actual pounds per square inch (psi) and cannot be compared directly to the old data which used the copper crusher method (CUP) or lead crusher method (LUP).

PROPELLANT POWDER

All smokeless powders are extremely flammable. Keep them stored in their original containers in locked cabinets, out of the reach of children or incompetent persons, and away from exposure to the sun's rays, heating equipment, electrical equipment, or any source of heat, flame or sparks.

Black Powder - NEVER substitute smokeless powder for black powder or black powder substitutes (Pyrodex, Clean Shot, etc.). NEVER mix smokeless powder with black powder or black powder substitutes. Never use smokeless powder in black powder firearms or in saluting cannons. Smokeless powder has much more energy than black powder or black powder substitutes. Substituting or mixing powders may cause the firearm to blow up, resulting in personal injury, property damage or death.

Dram Equivalent - The dram is an obsolete volume measurement for black powder. NEVER use the dram equivalent measure as a charge for smokeless powders for reloading. Using the dram equivalent may result in dangerously high pressures, leading to personal injury, property damage or death.

Powder Burning Rates - Do not use any burning rate chart as a guide to reloading. When powders are used in cartridge cases of varying sizes and shapes, the so-called burning rates can and do vary depending upon the exact set of loading circumstances. Since burning rate charts tend to be misleading, reloading data should never be extrapolated from them. Winchester does not suggest the positioning of Winchester powders on any burning rate chart.

Storage of Propellant Powder

- **STORE IN A COOL, DRY PLACE.** The storage area must be free from any possible sources of excess heat and isolated from any open flame, sparks, furnaces, hot water heaters, space heaters, etc. Store away from exposure to the sun's rays.
- **AVOID STORAGE AREAS NEAR MECHANICAL OR ELECTRICAL EQUIPMENT IN OPERATION.** Do not store near areas where improper, defective or overloaded electrical circuits may create heat or sparks.
- **DO NOT STORE IN THE SAME AREA AS SOLVENTS, FLAMMABLE GASES OR HIGHLY COMBUSTIBLE MATERIALS.**
- **STORE ONLY IN THE ORIGINAL CONTAINER.**
- **DO NOT SMOKE IN OR NEAR POWDER STORAGE AREAS.** Post "No Smoking" signs in these areas.
- **STORE IN ONLY APPROPRIATE STORAGE CABINETS.** Storage cabinets should be constructed of insulating materials with a weak wall, seams or joints to provide self-venting. Storage cabinets must not be closely confined.
- **DO NOT KEEP OLD OR SALVAGED POWDERS.** Check old powder for deterioration regularly; destroy deteriorated powders immediately.
- **OBEY ALL LAWS AND REGULATIONS REGARDING QUANTITY AND METHODS OF STORAGE.** Do not store more powder than you reasonably need. Do not store all your powders in one place. Many small containers are safer than one or more large containers.
- **KEEP YOUR STORAGE AND RELOADING AREA CLEAN.** Clean up spilled powder immediately. Make certain surrounding area is free of trash or other readily combustible materials.

and Critical Information

Check for Deterioration - Check for powder deterioration by smelling the contents of the container. Powder that is deteriorating has an irritating odor, which is not to be confused with common solvent odors such as alcohol, ether or acetone.

To dispose of deteriorated smokeless powder, burn it in an open space at an isolated location in small, shallow piles (not over 1 inch deep). Never burn more than one pound in any pile and never burn more than one pile at a time. To light a pile of deteriorated propellant powder, use an ignition train of slow-burning combustible material and retreat to a safe distance before the powder ignites.

PRIMERS

WARNING - Safe Storage and Handling of Primers

It is the responsibility of all persons who receive, store and use primers to be aware of the hazards and to know and follow all approved safety procedures. It is your responsibility to strictly comply with all applicable federal, state and local laws, regulations and ordinances.

BULK STORAGE OF PRIMERS IS EXTREMELY DANGEROUS!!

Primers should never be stored, handled or used in bulk; i.e. piled or poured together. The energy of one exploding primer is sufficient to cause mass detonation of the surrounding primers. This could result in property damage and serious injury or death to operators and/or bystanders.

Always keep primers in their original factory containers. The packaging has been designed to minimize accidental ignition and to protect the consumers as well as the primers.

Primers contain mixtures of chemical ingredients designed to explode and provide the necessary energy in the form of hot particles, heat, & gas to ignite propellant powders.

- Primers are sensitive to the following:
 - Impact, Friction, Heat, Flame, Static Electricity, and Mishandling abuses.
- Conditions which may cause misfires or poor ignition:
 - Exposure to water
 - Exposure to organic solvents such as paint thinner, gasoline, oil, grease, penetrating lubricants, etc.
 - Exposure to temperatures above 140 degrees Fahrenheit

Primers subjected to shaking, vibration, jolting, etc. may separate small particles of priming compound. This is referred to as "dusting". Accumulation of primer dust in primer feeds, on machine surfaces, in loading areas, etc. is extremely dangerous. Primer dust may cause fires and/or explosions due to heat, impact, friction, flame or static electricity. These areas must be kept very clean.

Store Primers in a Cool Dry Place Away From Heat, Sparks & Flame.

Cabinets designated for primers only are recommended. They should be constructed of materials designed to provide a substantial delay in the transmissions of heat in case of fire. Keep the storage area clean and free of other combustible materials such as propellant powders, solvents, flammable gases, etc. Avoid areas which may be subjected to high temperatures, open flames, sparks, furnaces, water heaters, direct sunlight, gunfire and bullet impact, the operation of mechanical or electrical equipment and static electricity. Primers should be stored in original factory containers only. Areas designated for the storage and/or handling of primers should require equipment and wiring methods suitable for hazardous locations (National Electrical Code, Class II, Div. I). Persons responsible for these areas should also observe and comply with all applicable federal, state and local laws, regulations and ordinances pertinent to their location.

NEVER SMOKE IN PRIMER STORAGE AREAS.

Handling Primers - Safety glasses should be worn at all times. Additional protection such as face shields and machine guards are also highly recommended for personal safety.

NEVER SMOKE WHILE HANDLING PRIMERS.

Primers are extremely sensitive and should always be handled with care.

Primers should be handled individually with adequate safeguards. The use of primer feeds for reloading is not recommended. Adequate protection from the danger of explosion must be provided by machine guards, barriers, etc. Primer feeds allowing contact between or among individual primers cause a potentially dangerous condition and are to be avoided. One exploding primer could cause detonation of all primers in the area.

Do not decap live primers. It is recommended live primers be destroyed by firing the empty shell or cartridge in a suitable firearm.

Precautions should be taken to prevent the accumulation of static electricity on persons handling primers or conducting handloading procedures. Cotton clothing, conductive shoes & floors, individual ground straps, static bars, leg stats, and proper electrical/mechanical grounds all help to reduce, dissipate and/or eliminate the buildup of static electricity. Atmospheric conditions, especially low humidity, will increase the potential of static accumulation. The working area should be maintained at a comfortable temperature with a relative humidity of at least 60% to minimize static buildup and/or discharge.

Good housekeeping is a must for safe cartridge loading and primer handling. Equipment and work areas should be kept clean and free of loose primers, primer dust, propellant powder, and/or abrasive materials. A damp cloth or sponge should be used to clean contaminated areas and be thoroughly rinsed after use. **DO NOT USE A VACUUM CLEANER BECAUSE FIRE OR EXPLOSION MAY RESULT.**

Reloading Notes, Warnings

Loading operations should be conducted with a minimum quantity of primers. Unused primers should be returned to the original package and placed in a designated safe storage area.

It is common sense to make primers unavailable to children, household pets, and any individuals that are not familiar with the potential danger of primers.

Never smoke or allow open flames, spark sources or hot particles near primers or loading areas.

Additional References:

Sporting Arms & Ammunition Manufacturer's Institute (S.A.A.M.I.)
National Electrical Code (NEC)
National Fire Protection Association (NFPA) 495, Explosive Materials Code
Occupational Safety & Health Administration (OSHA)

Use only those primers which are specifically shown in the data; do not substitute one primer for another as unsatisfactory or dangerous loads may result. NEVER use shotshell primers having uncovered flash holes with BALL POWDER® Smokeless Propellants.

WARNING: DO NOT INTERCHANGE FEDERAL 209 AND FEDERAL 209A PRIMERS

SHOTSHELL RELOADING

Shellcases

Winchester® Ammunition does not sell component shotshell cases. All Winchester® cases used in shotshell reloading are obtained as a result of first firing of factory loaded ammunition. Some sources for once-fired AA® cases and other Winchester shotshells include local skeet and trap ranges, gun clubs, and dealers catering to shotshell reloaders.

Exercise extreme care in determining use of the exact case listed in the data. Be certain to select the exact case being loaded. Substitution could be dangerous and data is not interchangeable from one case type to another. When in doubt contact the manufacturer of the case.

Powder Bushings and Scales

Powder bushings in shotshell reloading tools, in many cases, do not throw the exact charge specified. The reasons are many and include variations in gravimetric density of powders from lot to lot, differences between operators, variation in the amount of vibration transmitted to the tool during loading, manufacturing tolerances in the tool, or mismarked bushings.

A bushing listing chart cannot be interpreted as an absolute. It can represent what the manufacturer believes to be the nominal charge thrown with the listed bushing and powder. **A reloading scale is an absolute must.** Carefully check the powder charges and change bushing sizes when required. Check about 10 shells to determine the average weight of charges thrown and the uniformity of the charge. Do not try to determine the powder charge thrown by simply metering the powder bar back and forth and weighing charges; cycle the tool through the complete loading cycle to insure the same amount of vibration and powder packing as will take place in a normal loading cycle. Powder charges measured under the two conditions could vary as much as several grains. It is essential to check charge weight with a scale and go to the next larger or smaller bushing when and where required.

WARNING - Steel Shot

DO NOT RELOAD STEEL SHOT.

At this time, key components for acceptable steel shot loads are not widely available to reloaders. These products require special components such as "soft" steel shot, the special plastic wads and shot sleeves designed for use with such shot, and the special powder and primer required.

In some cases, available steel pellets are harder than the gun barrel in which they would be fired and can severely score barrel walls and distort barrel chokes. Commercial steel shot loads have special wads and thick plastic shot sleeves helping to shield the barrel wall from the shot pellets. The shot sleeves used in lead shot loads are not sufficient to protect gun barrels from damage due to steel shot. The reloading of steel shot loads is entirely different than loading lead shot ammunition and therefore requires all new components and data. **Any attempt to load steel shot loads, with current components, may damage your gun and could injure the shooter or bystanders.**

When reliable data become available, the recommendations are as follows:

1. DO NOT RELOAD STEEL SHOTSHELLS WITH ANY COMPONENT OTHER THAN THOSE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER AS SUITABLE FOR SUCH LOADS.
2. DO NOT USE STEEL SHOT COMPONENTS IN LEAD SHOT LOADS UNLESS THE MANUFACTURER RECOMMENDS SUCH DUAL APPLICATION.

Steel shot components are not currently available from Winchester.

Buffered Shot Cautions

We do not recommend the use of buffer in shotshell reloads.

The use of any buffering material in a shot column will significantly alter the ballistics for any given shotshell load. Talc, flour, and similar non-compressible materials should never be considered as buffering materials as they can produce dangerously high, erratic pressures in an unpredictable manner. The rate with which propellant burns within a shotshell is governed to a great extent by the uniform compressibility of the wadding and shot. Changes in the compressibility, such as is the case with buffering materials, can drastically change the burn rate of the propellant. Careful testing of buffered loads is required to assure the load will not result in a damaged gun, personal injury or death.

and Critical Information

Wads

Use only those wads as specifically shown in the data; do not substitute one wad for another. Substitution may result in an unsatisfactory or dangerous load. The uniform ballistics obtained with brand name wads may not be achieved with lower cost substitutes.

Wads Seating Pressure

Wad pressure, when using BALL POWDER[®] propellant, is not critical. Pressures from 0 lbs. to 100 lbs. may be appropriate. The only criterion is enough pressure must be used to insure a good crimp. Begin at 40 pounds and vary as necessary to get the best crimp. Wads must be seated on the powder (no air space should exist between wad and powder). Do not load any components that require more than 100 pounds wad pressure.

Velocity Data

Velocities cited in the data are averages of a series of shots fired in accordance with equipment and techniques used throughout the American arms and ammunition industry. Listed loads have given consistent velocity results in testing.

The data were generated using shotshell velocity barrels that conform to the following lengths (in accordance with SAAMI* standards):

12 ga. 2-3/4" Full Choke 30"

20 ga. 2-3/4" Full Choke 26"

28 ga. 2-3/4" Full Choke 26"

410 bore 2-1/2" or 3" Full Choke 26"

*Sporting Arms and Ammunition Manufacturers Institute

Selection of Shotshell Recipes for Reloading

The shotshell loads in this data reference are listed in order of gauge, shell length, case type and shot weight. BE CERTAIN TO SELECT THE DATA FOR THE EXACT CASE BEING LOADED. Data is not interchangeable from one case type to another.

METALLIC CARTRIDGE RELOADING

Data Generation

To generate the data for the tables included in this Manual, tests for pressure and velocity were conducted at ambient temperature (70 degrees F) and at +140 degrees F and -40 degrees F, with powder positioned at the primer and the bullet (to simulate muzzle up, muzzle down conditions).

All rifle velocities quoted have been measured in standard 24 inch long SAAMI test barrels, except for the 30 carbine data which was obtained using a 20 inch barrel. All handgun velocities were measured in SAAMI test barrels with lengths listed in the accompanying table.

Using Propellant Powder with Listed Recipes - Always use a good scale to check all powder charges. All rifle loads listed are maximum loads. Begin reloading using 10% less powder than the suggested load and carefully increase the amount of powder until optimum performance is achieved. NEVER EXCEED THE MAXIMUM LISTED LOAD.

Old Brass

Most of the older, obsolete cartridge cases were designed for use with Black Powder, the only available propellant at the time. The primers used contained a mercury fulminate mixture as the initiator, which damages the brass and causes it to weaken and become brittle. Fortunately for the old-timers using black powder, the powder fouling itself tended to dilute the effect of the mercury on the brass case.

The advent of smokeless powder greatly magnified the mercuric effect upon the brass cases, particularly those cases which were reloaded and refired. The cleaner burning propellant and the stronger primers used allowed the mercury to be driven deeper into the brass, causing serious weakening of the case.

The use of mercury in commercial priming mixtures continued in the U.S. until the early 1930s, when lead styphnate replaced mercury in priming. An exception to this was the continued use of a mildly mercuric priming mixture by Winchester for Super-Match[®] 30-06 Springfield and 300 H&H Magnum cartridges. This primer was discontinued in 1960.

Since it would be unusual for a present day handloader to acquire old and/or obsolete brass cartridge cases and be able to identify the period of manufacture, it is not worth the risk of injuring a shooter or damaging his gun to attempt to load such cases. Therefore, Winchester suggests not reloading old brass cartridge cases.

Cases

Inspect all cases with extreme care before reloading. Be sure cases are kept trimmed to the required length. Excess case length is a common cause of difficulty in reloading. Do not trim any case more than four times; discard prior to fifth trimming.

WARNING FOR 296 POWDER

Loads using 296 powder require heavy bullet pull (heavy crimp). Using 296 powder with light bullet pull (light crimp) may result in squib loads and cause damage to the firearm, shooter and/or bystanders.

Winchester Reloading Components Manual

Winchester® Muzzleloading Components



Succeed in the field this muzzleloading season by loading up with high performance Winchester® Supreme® Platinum Tip™ and Partition Gold® Hunting Bullets & Sabots and Winchester Muzzleloading Primers.

The NEW Supreme® Platinum Tip™ Hollow Point bullet is a new benchmark in muzzleloading bullet design and performance - delivering superior accuracy, uniform expansion and massive energy deposit.

Muzzleloading Components Sabot Slug & Primers

Supreme® Hunting Bullets & Sabots

Caliber	Charge Wt.	Symbol	Bullet Wt. Grs.	Bullet Type	Quantity/ Carton	Velocity in Feet Per Second (fps)					Energy in Foot Pounds (ft.-lbs.)					Trajectory Height in Inches						
						Muzzle	50	75	100	125	Muzzle	50	75	100	125	25	50	75	100	125	150	175
NEW .45	150 gr.	WML45PTH	200 gr.	Platinum Tip HP	30	2450	2168	2034	1905	1781	2665	2086	1836	1611	1408	0.1	1.0	1.6	1.7	1.2	0.0	-2.0
.50	90 gr.	WML260P	260 gr.	Partition Gold	10	1650	1490	1417	1348	1284	1571	1282	1159	1049	952	0.3	1.2	1.1	0.0	-2.3	-6.0	-
.50	90 gr.	WML260PTH	260 gr.	Platinum Tip HP	30	1650	1490	1417	1348	1284	1571	1282	1159	1049	952	0.3	1.2	1.1	0.0	-2.3	-6.0	-
NEW .54	120 gr.	WML54PTH	400 gr.	Platinum Tip HP	30	1700	1554	1485	1420	1359	2566	2144	1959	1791	1640	0.2	1.1	1.0	0.0	-2.1	-5.4	-

Winchester Muzzle-Loading Primers

WML209 100



AA, BR1, CKP, Double A, Double X, Drylok Super Steel, Fail Safe, Fail Safe design, Hi-Impact, Horse and Rider design, Lubalox, Lubaloy, Olin, Popper-Load, Power-Point, Ranger, Silvertip, Super-Handicap, Super-Lite, Super Match, Super Pigeon, Super Steel, Super-X, Super Unloaded and design, Supreme, SXT, SXT design, T22, W, Western, Wildcat, Winchester, Xtra-Lite, and XX design, are registered trademarks of Olin Corporation.

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