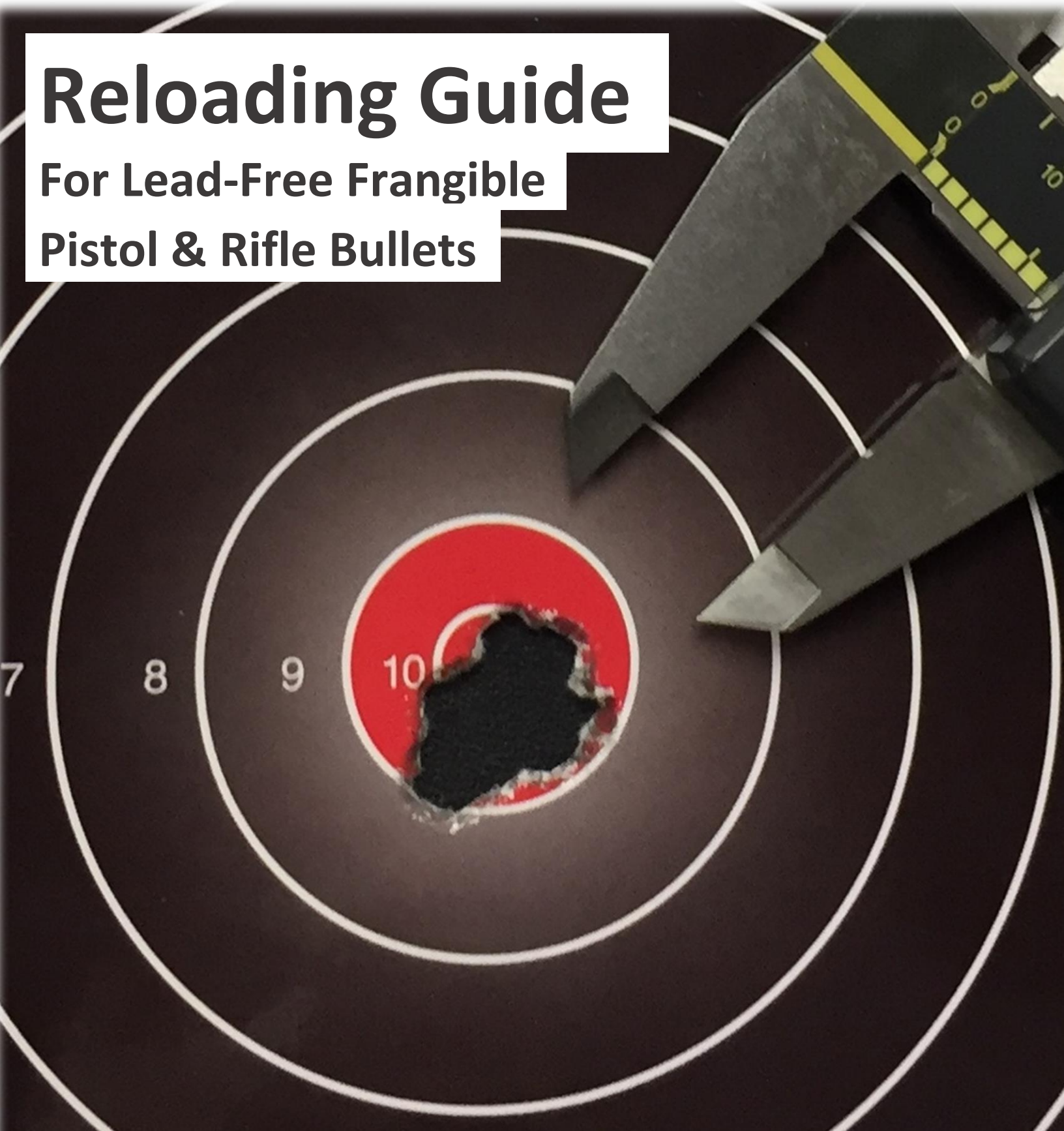
SinterFire

Reloading Guide

For Lead-Free Frangible Pistol & Rifle Bullets



Shooting Steel Targets with SinterFire Bullets:

SinterFire lead-free frangible bullets are made to be fired on steel targets, however there are some things the user must understand:

- SinterFire pistol bullets listed in this manual can be fired on ¼ inch AR 400 steel targets with no damage to the steel and reduced ricochet hazard to the shooter.
- SinterFire rifle bullets listed in this manual should only be fired on ¼ inch or thicker AR 500 steel. SinterFire bullets should travel no faster than 2,750 feet per second (fps) +/- 45 fps to avoid damage to AR 500 targets.
- SinterFire recommends 5 yards as the closest distance to shoot from when shooting steel targets.
- As results may vary from different firearms, SinterFire recommends that each user safely tests their loads before using in the field or training.

Crimping Notice for SinterFire bullets:

Due to the frangible nature of compressed powdered metal bullets, crimping is a delicate matter. Over-crimping will result in a compression and/or stress fracture at the case mouth that will cause the bullet to break off. Please follow the listed guidelines for proper crimping:

Adjustment of the bell/expander die

The case mouth should be belled/expanded the minimum amount to permit proper lead-in of the bullet.

Bullet Seating

SinterFire bullets are designed with a tapered length to accept a mild taper crimp at a pre-determined depth. They should always be loaded to the suggested Cartridge Over All Length. (COAL)

Final Crimping (always taper crimp)

Very little taper crimp is required, less than cast, jacketed or plated bullets.

Prior to finalizing the set-up of the loading operation, the bullets of several loaded rounds should be pulled from their cases and inspected for crimp compression. A properly crimped bullet should not show signs of crimp compression or indentation by, or at the case mouth.

Disclaimer:

SinterFire bullets are frangible projectiles that perform and load differently than traditional lead bullets. Extra care in loading and crimping is required with SinterFire bullets. All data presented by SinterFire is for reference purposes only. It is intended for use by persons familiar with loading practices, ballistics, their own ability and loading equipment. If you are not knowledgeable regarding the loading process and the dangers associated, seek the advice of a professional. Since loading practices are beyond SinterFire's control, SinterFire disclaims all responsibility either expressed or implied for injuries and/or death.

Warnings:

This guide is for reference purposes only. The individual hand loader must determine the best and safest load for his/her equipment. Loads described in this guide were generated at the facilities of Western Powders, Inc., (on behalf of SinterFire, Inc.) in accordance with the SAAMI (Sporting Arms and Ammunition Manufacturers' Institute, Inc.) guidelines. All loads are fired through test barrels and individual results fired through different firearms may vary. The hand loader is cautioned to read and follow safe reloading practices such as those outlined in the NRA Guide to Reloading before attempting to reload any cartridge.

Disclaimer:

Western Powders, Inc., (on behalf of SinterFire) Inc. has developed this guide to provide the hand loader with the current data for reloading Ramshot powders. This guide is not intended to be a reloading textbook, but rather a list of recommended loads for Ramshot powders. As Western Powders, Inc. and SinterFire, Inc. have no control over the actual reloading procedures and methods being used, or the condition or choice of firearms and components used, no responsibility for the use of this data is implied or assumed.

The buyer/user assumes full responsibility, risk and liabilities for all injuries (Including Death), damages and/or losses to persons or properties resulting from the use/misuse of this product. The ballistics data contained in this guide was obtained at the Western Powders' ballistics facilities under strictly controlled conditions and is applicable ONLY for Ramshot powders. It is important to remember that equipment variations, different reloading techniques and component variations will most likely yield slightly different ballistics data. With this in mind, it is imperative that maximum charge recommendations are not exceeded in this guide and that loading always begins with the minimum powder charges in the loads illustrated.

Powder Warnings:

Smokeless powder is intended to function by burning. Therefore, it must be protected from exposure to flame, sparks, high temperatures and the sun's rays. When ignited, smokeless powder will normally continue to burn (and generate gas pressure) until the powder is entirely consumed. With this in mind:

- Never mix or substitute powders with other powders
- Avoid open flames, combustibles and spark-producing tools
- Store powder in its original container in a cool/dry place
- Do not keep or use old or salvaged powders
- Check powder for deterioration on a regular basis. Deteriorated powder gives off a noxious odor (not to be confused with solvents such as alcohol or ether)
- Use only the amount of powder necessary for the application
- Use a broom and dust pan to clean spilled powder. DO NOT VACUUM
- Do not stockpile powder. Store/utilize only powder necessary for current needs
- Be certain that the powder container is empty prior to discarding

Component Warnings:

- NEVER MIX PRIMERS of different makes
- Store primers in original packaging in a cool/dry place. Heat exposure causes primer deterioration
- Do not stockpile primers or store in bulk. Mass detonation may result if a primer ignites
- Do not de-cap live or new primers. Fire them in the appropriate gun and then de-cap
- For best results, use the mildest primer consistent with good ignition
- Do not force primers. If there is resistance in seating or feeding primers, stop and investigate
- Wash hands before and after handling primers – oil contamination can affect primer ignition

Quality Control

Reloading provides a cost-effective means of obtaining ammunition, while also allowing for custom loading. You, the individual hand loader, are responsible for producing the ammunition that you will later shoot. The caution and diligence you put into your reloading process can be ultimately rewarding or disastrous depending upon the quality of your work.

- Use common sense during all phases of reloading
- Follow load recommendations exactly
- Always start loading with the minimum recommended powder charge
- Designate a work area to be used only for reloading and keep that area clean and orderly
- Label components and reloads for quick and easy identification
- Develop a reloading routine and follow it
- Never reload when you are tired or distracted
- Wear safety glasses when reloading
- Do not smoke, eat, or drink in the reloading area
- Keep your powder, reloading equipment and firearms secure from children
- Obey all laws and regulations regarding purchase, quantity and storage of powder
- When the case fill is less than 50%, extreme care should be taken to avoid the possibility of double charging. Always check every round.

Note:

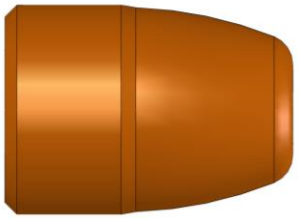
The data in this guide is not to be used with lead free/heavy metal free primers. The data for lead free/heavy metal free primers will be printed at a later date.

The loads listed in this guide are only to be used with SinterFire bullets.

The golden rule of reloading: Always use suggested minimum START load. This also applies whenever a change is made to any one of the components in the combination (i.e. primer, case or bullet).

380 Auto

DIAMETER: .356 in.
C.O.A.L.: .945 in.



SF380-75 RHFP

B.C. - .095
BBL – 4 in.
Twist – 1/16 in.
Primer – CCI 500

POWDER	Bullet Weight (gr.)	Start Load (gr.)	Start Velocity (fps)	Max Load (gr.)	Max Velocity (fps)	Max Pressure (psi)
Titegroup	75	2.7	921	3.0	1,025	21,500

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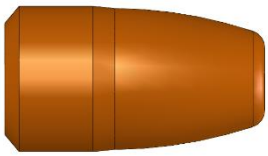
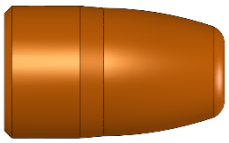
9 MM LUGER

DIAMETER: .355 in.
C.O.A.L.: 1.120 in.



SF9-100 RHFP



SF9-90 RHVF

B.C. - .142 / .115
BBL – 4 in.
Twist – 1/10 in.
Primer – Fed 100

POWDER	Bullet Weight (gr.)	Start Load (gr.)	Start Velocity (fps)	Max Load (gr.)	Max Velocity (fps)	Max Pressure (psi)
231	100	3.9	1,062	4.4	1,149	31,000
700-X	100	3.5	1,015	4.0	1,122	26,700
HP-38	100	3.9	1,062	4.4	1,149	31,000
PB	100	3.8	1,076	4.3	1,155	28,700
Silhouette	90	5.8	1,207	6.4	1,341	34,910
Silhouette	100	5.2	1,108	5.8	1,231	34,980
Titegroup	100	3.6	1,097	4.0	1,174	31,400
True Blue	90	5.2	1,082	5.8	1,202	33,680
True Blue	100	4.8	995	5.3	1,106	34,170
Universal	100	3.8	1,057	4.2	1,169	30,700
Zip	90	3.9	1,064	4.3	1,182	34,030
Zip	100	3.6	993	4.0	1,103	34,550

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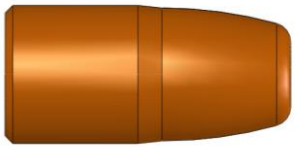
38 Special

DIAMETER: .357 in.
C.O.A.L.: 1.500 in.



SF38-110 RHFP

B.C. - .120
BBL – 5 in.
Twist – 1/18.75 in.
Primer – Fed 100

POWDER	Bullet Weight (gr.)	Start Load (gr.)	Start Velocity (fps)	Max Load (gr.)	Max Velocity (fps)	Max Pressure (psi)
Silhouette	110	5.1	805	5.7	894	16,185
True Blue	110	5.0	743	5.5	826	16,925
Zip	110	4.0	642	4.4	713	16,095

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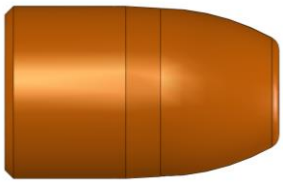
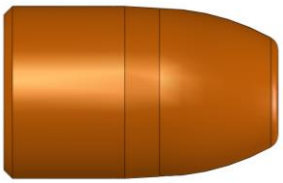
40 Smith & Wesson

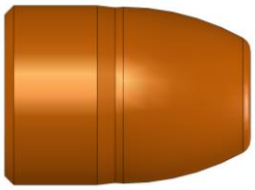
DIAMETER: .400 in.
C.O.A.L.: 1.120 in.



SF40-135 RHFP



SF40-125 RHFP



SF40-105 RHVF

B.C. - .122 / .117
BBL – 4 in.
Twist – 1/16 in.
Primer – Win SP

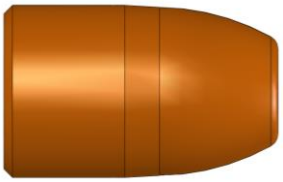
POWDER	Bullet Weight (gr.)	Start Load (gr.)	Start Velocity (fps)	Max Load (gr.)	Max Velocity (fps)	Max Pressure (psi)
231	125	4.8	1,060	5.4	1,132	31,500
700-X	125	4.6	1,069	5.2	1,143	31,200
HP-38	125	4.8	1,060	5.4	1,132	31,500
PB	125	4.8	1,057	5.3	1,127	26,500
Silhouette	125	6.2	1,040	6.9	1,156	32,680
Titegroup	125	4.3	1,041	4.8	1,145	31,300
AA#2	135	-	-	4.8	963	-
Bullseye	135	-	-	5.0	1,067	-
True Blue	105	7.4	1,168	8.2	1,298	33,060
True Blue	125	5.8	970	6.4	1,078	33,080
Universal	125	4.7	1,059	5.3	1,172	32,300
Zip	105	5.8	1,182	6.4	1,313	33,220
Zip	125	4.5	986	5.0	1,096	34,380

The data in this guide is not to be used with lead free/heavy metal free primers. The loads listed in this guide are only to be used with SinterFire bullets.

The golden rule of reloading: Always use suggested minimum START load. This also applies whenever a change is made to any one of the components in the combination (i.e. primer, case or bullet).

10 mm Auto

DIAMETER: .400 in.
C.O.A.L.: 1.250 in.



SF40-125 RHFP

B.C. - .122
BBL – 4 in.
Twist – 1/16 in.
Primer – Win LP

POWDER	Bullet Weight (gr.)	Start Load (gr.)	Start Velocity (fps)	Max Load (gr.)	Max Velocity (fps)	Max Pressure (psi)
Titegroup	125	5.0	-	6.3	1,350	- 37,500

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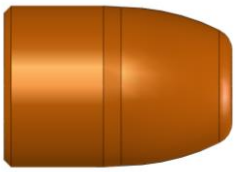
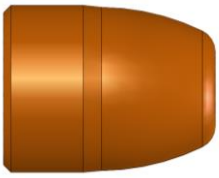
45 Auto

DIAMETER: .451 in.
C.O.A.L.: 1.210 in.



SF45-155 RHFP



SF45-140 RHVF

B.C. - .119 / .110
BBL – 5 in.
Twist – 1/16 in.
Primer – Fed 150

POWDER	Bullet Weight (gr.)	Start Load (gr.)	Start Velocity (fps)	Max Load (gr.)	Max Velocity (fps)	Max Pressure (psi)
231	155	5.6	944	6.2	1,057	16,700
700-X	155	5.3	955	5.8	1,045	16,200
HP-38	155	5.6	944	6.2	1,057	16,700
PB	155	5.3	901	5.8	1,016	16,600
Silhouette	140	8.0	1,060	8.9	1,178	19,390
Silhouette	155	7.1	990	7.9	1,100	20,740
Titegroup	155	5	974	5.5	1,036	16,900
True Blue	140	7.7	1,009	8.6	1,121	20,250
True Blue	155	6.8	916	7.6	1,018	20,310
Universal	155	5.4	828	6.0	1,050	16,900
Zip	140	6.2	1,022	6.9	1,136	20,110
Zip	155	5.2	901	5.8	1,001	19,030

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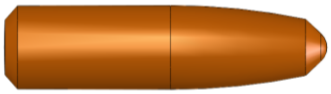
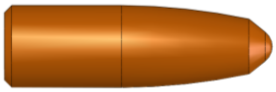
223 Remington

DIAMETER: .224 in.
C.O.A.L.: 2.175 in.



SF223-55 WTP



SF223-45 WTP

B.C. - .235 / .195
BBL – 24 in.
Twist – 1/12 in.
Primer – Fed 205

POWDER	Bullet Weight (gr.)	Start Load (gr.)	Start Velocity (fps)	Max Load (gr.)	Max Velocity (fps)	Max Pressure (psi)
Benchmark	45	22.5	3,130	25.0	3,410	51,000
Benchmark	55	21.0	2,903	23.4	3,128	51,000
BL-C(2)	55	24.0	2,937	27.0	3,220	51,500
X-Terminator	45	24.3	3,186	27.0	3,540	54,177
X-Terminator	55	22.8	2,926	25.3	3,251	54,987
TAC	45	24.7	3,177	27.4	3,530	53,987
TAC	55	23.1	2,929	25.7	3,254	54,177
H322	45	22.0	3,088	24.6C	3,399	50,800
H322	55	21.0	2,894	23.1	3,113	51,700
H335	45	23.0	3,172	25.3	3,428	50,700
H335	55	21.4	2,969	22.8	3,099	51,800
H380	45	25.3	2,788	-	-	-
H4198	45	19.0	3,097	21.8	3,414	51,400
H4198	55	18.0	2,852	20.4	3,084	51,400
H4895	55	22.0	2,941	24.6C	3,226	53,500
IMR 3031	45	21.0	2,981	24.0C	3,400	52,300
IMR 4064	55	21.0	2,711	23.0C	2,945	44,800
IMR 4198	45	19.0	3,108	21.0	3,395	52,400
IMR 4320	55	23.0	2,796	25.5	3,100	51,100
IMR 4895	55	22.0	2,827	24.6C	3,106	50,700
IMR 8208 XBR	45	23.0	3,124	26.0C	3,491	52,100
SMP	55	24.5	2,993	-	3,029	50,842
Varget	55	23.5	2,990	25.1C	3,149	51,700
WC	55	26.9	3,016	-	3,038	50,647

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308 Winchester

DIAMETER: .308 in.
C.O.A.L.: 2.700 in.

SF308-125 NTP

B.C. - .325
BBL – 24 in.
Twist – 1/12 in.
Primer – Fed 210

POWDER	Bullet Weight (gr.)	Start Load (gr.)	Start Velocity (fps)	Max Load (gr.)	Max Velocity (fps)	Max Pressure (psi)
Benchmark	125	40.0	2736	44.5C	3019	52,000
H322	125	38.0	2760	42.5C	2985	52,800
H335	125	42.0	2840	46.5	3075	52,300
H4895	125	42.0	2796	46.0C	3034	49,600
IMR 3031	125	39.0	2741	43.5C	3007	51,400
IMR 4895	125	43.0	2772	48.0	3068	55,000
IMR 8208 XBR	125	42.0	2830	46.5C	3110	54,100
TAC	125	41.6	2,723	46.2	3,025	47,220
X-Terminator	125	39.6	2718	44.0	3,020	48,940

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