

SHOTSHELL RELOADING GUIDE

EDITION 2.1



Accurate[®]

RELOADING POWDERS

“Our Name Says It All”

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WARNINGS

This guide is intended to be used as a reference. Each individual handloader must determine what is the best and safest load for their equipment. The loads described in this guide were generated at the ballistics test facilities of Western Powders, Inc. in accordance with SAAMI (Shooting Arms and Ammunition Institute) guidelines. All loads are fired through test barrels and individual results fired through different firearms may vary. The handloader 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. has developed this guide to provide the handloader with 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. has 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 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, as well as component variations will most likely yield slightly different ballistics data. With this in mind, it is imperative that you do not exceed the maximum charge recommendations in this guide and that you always start loading 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:

1. NEVER MIX OR SUBSTITUTE powders with other powders;
2. Avoid open flames, combustible agents, and any spark-producing tools when handling powders;
3. Store powder in its original container in a cool / dry place;
4. Do not keep or use old or salvaged powders;
5. Check powder for deterioration on a regular basis. Deteriorated powder is detected by its noxious odor (not to be confused with solvents such as alcohol or ether).
6. Pour out only the amount of powder necessary for the application being conducted;
7. If you accidentally spill powder, use a broom and dust pan to clean it up. DO NOT VACUUM the spilled powder;
8. Do not stockpile powder - store and utilize the amount of powder necessary for your current reloading needs;
9. Be certain that the powder container is empty prior to discarding.

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COMPONENT WARNINGS

Primers

1. NEVER MIX PRIMERS of different makes;
2. Store primers in their original packaging(s) in a cool, dry place. Exposure to heat causes primer deterioration;
3. Do not stockpile primers or store in bulk. Storing primers in this manner can lead to mass detonation if a primer ignites;
4. Do not de-cap live or new primers - fire them in the appropriate gun and then de-cap;
5. For best results, use the mildest primer consistent with good ignition;
6. Do not force primers. If there is resistance in seating or feeding primers, stop and investigate the cause of the problem;
7. Clean your hands before and after handling primers - oil contamination can affect the ignitability of the primer.

QUALITY CONTROL

Reloading provides an individual with a cost effective means of obtaining ammunition, while at the same time allowing for custom load assemblage. You, the individual handloader, 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.

1. Common sense and care must be practiced during all phases;
2. Follow load recommendations exactly.
3. ALWAYS START LOADING WITH THE MINIMUM POWDER CHARGE SHOWN;
4. Designate a work area to be used only for reloading and keep that area clean and orderly;
5. Label components and reloads for quick and easy identification;
6. Develop a reloading routine and follow it;
7. Understand what you are doing and why it must be done in a specific manner; Never reload when you are tired or distracted;
8. Wear safety glasses when reloading;
9. DO NOT smoke, eat, or drink in your reloading area or while you are reloading;
10. Keep your powder, reloading equipment and firearms secure from children;
11. Obey all laws and regulations regarding purchasing, quantity, and storage of powder(s).
12. 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:

THIS DATA SUPERSEDES ALL PREVIOUS LOAD DATA.
Always use the latest load data.

SHOTSHELL GUIDE EDITION 2.1

SHOT SHELL LOADING

Background and basic Fundamentals of Shot Shell loading.

- The fundamental difference between a shotshell cartridge and a typical centre fire rifle cartridge is, that the efficiency of the shotshell cartridge is 100% dependant on the round itself. By this we mean that all the “resistive forces” must be generated within the confines of the round itself. No assistance is provided by the gun.
- The reason for this is that the Maximum Peak Pressure is reached long before the base of the shot/wad assembly has left the case. (In the case of a CF rifle cartridge, the peak pressure is achieved when the bullet is engraved, therefore the large contribution, as a result of leade/free-bore dimensions on the combustion process. (I.e. bullet/bore interface fit, bullet hardness, bearing surface etc).
- The reason for this is that the critical engraving force which is so important to the dynamic combustion process present in a CF rifle caliber is totally absent in a shotgun.
- Shotgun and typical straight-case handgun calibers are actually basically the same in their fundamental ratios and dynamics. A shotgun can be described as an oversize low-pressure handgun caliber. That’s why the same powders are used in shotgun and handgun calibers.
- This means that the efficiency, regarding ignition and the subsequent increase in pressure, is totally controlled by the integral configuration and assembly of the round itself. These constitute the main inertial mass (shot mass), the initial internal volume (wad design), the dynamic collapse (primary expansion) of the internal volume (collapsible section of the wad), plus the displacing of the internal assembly and the unfolding of the fold/crimp (secondary/Final expansion).
- The way this COMBINATION interacts, will determine the efficiency Pressure impulse (Profile and time-base) and the Peak-pressure vs Velocity ratio (P/V). The resistive force, presented by friction in a shotgun is negligible.

CRIMPING: (ASSEMBLY)

- This is certainly one of the most important aspects of the Shotshell reloading process.
- The influence of crimp on the ballistics is often ignored, and assumed to be of lesser importance than primers and wad make/design.
- The fact is that the effect of Crimp-strength can totally overshadow the influence of the other components and parameters. This is controlled by the following:
 - Crimp depth: Depth setting on crimping machine.
 - Condition of the case: Material hardness resilience.
 - Wad: Length, Stiffness and rigidity/flexibility of collapsible section.
 - Wad Tension: Pre-tension/compression setting on crimping machine.
- Some reloader’s want to extend case life and they tend to crimp as shallow as possible, and with the least crimp strength possible. However, this practice can be problematic if the improper combination of primer, case, wad and powder is used. Example: If a “soft” combination is used, it can lead to underperformance, or in extreme cases bad ignition or “bloopers”. It is always wise to use a strong a crimp as possible, for any particular load/combination.

PRIMERS:

- It is well known that different primers deliver different energy levels. The way each company manufacturers and formulates the chemical composition, and configures the hardware (metallic) parts of the primer, all plays a major role in how the primer will deliver the energy to the powder.
- Again, we must emphasize that it’s all about the particular combination, and whether a change in primer will show a difference in ballistics.
- Shotgun primers are very sensitive to firing pin energy. This is due to the proportionally large displacement/deformation that must take place when the primer’s cup is crushed.
- It is extremely difficult to pin the data down to a standard one load, where primer X will always deliver higher performances than Primer Z. We developed our loads using a standard typical primer. If all conditions are the same, the difference between primers will rarely be dangerous. It is obvious that if the load one is using, is already running at the maximum level with primer X, it would be unwise to merely change the primer and continue loading. This is also true for any change in component or procedure.
- Once any component or procedure is changed, the combination will react differently. The proper way to proceed is to reduce the load by about 0.5grain to 0.7grains, and then confirm the performance by measuring the velocity or sensing the recoil/flight time. The reloader can then adjust back to the same velocity/recoil level, by increasing or decreasing the charge mass, or by adjusting to a stiffer or softer wad or decreasing or increasing the crimp.

VOLUMETRIC LOADING/DISPENSING:

- Always confirm the “thrown weight” from any bushing, bar etc on a scale.
- There are just too many variables that can influence volumetric measuring, of powder.
- These are:
 - The physical action with which the loading machine is operated.
 - The atmospheric conditions especially Relative Humidity (RH). This is especially true of single base powders which are very hygroscopic. Accurate Solo1000 is a single base powder, and Nitro 100 New Formulation and Ramshot Competition are double base powders.

RECOIL:

This is certainly the most discussed aspect of the shotgun shooting sport, and this is understandably so, because it determines the “comfort” of shooting hundreds of rounds in quick succession. (See section below on “Perceived recoil” and ergonomics). Because it’s such a subjective issue/subject, the conclusions and recommendations are most of the time unfortunately shrouded in confusion, and corrupted by improper comparisons.

First of all we need to emphasize and acknowledge the following important facts:

- First, there is true recoil energy in measured Ft/lbs of the gun itself, and once the shooter becomes part of the equation, the very subjective issue of “Perceived” or “Felt” recoil.

True Recoil:

- Normal physics still do apply, and in this case Newton’s Third law: For every action there is an equal and opposite reaction.

Formula: Mass of bullet + Mass of powder x Velocity (projectile) = Mass-gun x Velocity-gun.

- If different groups of ammunition, with the same shot mass are delivering the same velocity in a particular shotgun, the recoil WILL be the same.

“Perceived” or Felt” recoil:

Ergonomics

- Because the shooter forms a part of the “launching platform”, this reaction of the total platform will be as diverse as there are shooters.
- One must see the ammunition, gun and shooter as a three part “system” (Combination) forming this “launching platform”. The way these three parts interact and interface, will determine “how” the recoil takes place, and how the shooter will “perceive” or “feel” “experience” the recoil. (Notice the emotional aspects)
- Since the body is the heaviest part of the total recoiling mass, which anchors the system to the ground, it has the most inertial resistance. Since the body is soft, that part of the body interfacing directly with the shotgun, will absorb the energy long before the body starts moving (displacing). Thus the maximum absorption takes place in the few inches of muscle and tissue directly behind the butt.
- That’s why sometimes small and minute differences in gun design, hold/stance and balance will lessen the effects of recoil, and this will eventually directly determine the level of bruising/punishment, and as such the endurance of the shooter. This endurance-threshold will directly impact the shooters abilities to remain focused and accurate.
- This “endurance-threshold” is different for each shooter, and are determined by various aspects of the individual’s body structure re muscle, developed muscle (training), body weight and length (Tall = usually flexible, absorb energy better, softer feel, or short stocky = rigid hard recoil. The psychological make-up/preparedness (training) must also be considered.
- Apart from the above aspects, every person has a natural pain-threshold (nerves), and some will be able to endure more than others, before it will start affecting their shooting discipline and results.

AMMUNITION:

- As can be seen from the formula pressure is not part of the equation. Therefore the “peak”-value published in load guides does not really mean anything. However, Ammunition can be assembled (combination) to deliver similar velocities = true recoil, with a pressure impulse which can be slightly altered, having the same total impulse, but over a slightly longer time base. These changes can them be perceived as being “softer”. However, we must again stress the fact that the comparison must always be fair and clinical (apples with apples) re velocity. A proper average can really only be determined over a 10 and 20 round test, fired at different time’s, and days, to include day to day variation etc.
- This can be achieved by altering any one of the components in the above ammunition “subsystem”, which comprises of the primer, case/hull, wad, powder/burn-rate and the weight of the shot.
- This effect is the result of the combination and never one of the components only. This can only be properly done by thorough experimentation with different primer/s, cases, crimp /assembly methodology (see section below), wad design/s /make, wad tension (assembly), and the weight the shot.

MEASURING VELOCITY

POINTS TO REMEMBER WHEN LOADS ARE COMPARED.

The importance of measuring the velocity.

- Do not assume the velocity for your conditions is the same as the published data, even if you are duplicating the exact same combination re components i.e. the case/hull, powder type, powder charge, shot weight etc as recommended by any load guide.
- This real difference can only be determined by actually measuring the velocity, for the conditions, components and weapon system as used by the reloader/shooter.
- When loads are compared and the level of “perceived-recoil” has been determined for a particular shooter, have the velocity measured to confirm that the softer load are actually not merely a slower velocity. Since the formula for Kinetic Energy is half the mass x velocity squared, the shooter will detect a difference in recoil within a few feet per second. Especially the seasoned professional shooters that have developed an above average sensitivity and ability to sense variations between “loads”. — *Johan Loubser, Ballistician.*



Accurate Nitro 100 New Formulation - REMINGTON STS Hulls *continued*

Shot wt	Wad	Prim	1050 grs Psi	1100 grs Psi	1125 grs Psi	1150 grs Psi	1175 grs Psi	1200 grs Psi	1225 grs Psi	1250 grs Psi	1275 grs Psi	1300 grs Psi	1325 grs Psi	1350 grs Psi	1375 grs Psi	1400 grs Psi	1425 grs Psi	1450 grs Psi
7/8	Rem-TGT	Fed						15.9 7,626	16.3 8,243	16.7 8,859	17.2 9,476	17.6 10,093	18.0 10,710	18.5 11,327				
7/8	DR-XL-1	Fed						15.7 8,057	16.1 8,684	16.6 9,312	17.0 9,939	17.5 10,566	18.0 11,194					
7/8	DR-XXL	Fed						15.2 6,825	15.8 7,419	16.4 8,013	17.0 8,608	17.6 9,202	18.2 9,797	18.8 10,391	19.4 10,986	20.0 11,500		
7/8	DRA-12	Fed						15.6 8,561	16.0 9,087	16.5 9,612	16.9 10,138	17.4 10,664	17.8 11,190					
7/8	DR-J-XL-1	Fed						15.5 8,259	16.0 8,822	16.5 9,385	17.0 9,949	17.5 10,512	18.0 11,076					
7/8	CB-0178-12	Fed						15.7 6,600	16.2 7,171	16.8 7,741	17.3 8,311	17.9 8,881	18.4 9,452	18.9 10,022	19.5 10,592	20.0 11,162		
7/8	WJII-12100	Fed						15.4 7,373	15.9 7,869	16.4 8,364	16.9 8,860	17.5 9,355	18.0 9,851	18.5 10,346	19.0 10,842	19.5 11,338		
7/8	CB-8100-12	Fed						15.6 7,623	16.1 8,228	16.6 8,832	17.2 9,437	17.7 10,042	18.2 10,647	18.7 11,251				
7/8	WhiteDuster	Fed						15.4 7,898	16.0 8,444	16.6 8,989	17.2 9,535	17.7 10,080	18.3 10,625	18.9 11,171				
7/8	CB-4100-12B	Fed						15.2 6,509	15.8 7,091	16.4 7,672	16.9 8,253	17.5 8,835	18.1 9,416	18.7 9,998	19.3 10,579	19.9 11,160		
7/8	GreenDuster	Fed						15.4 9,072	16.0 9,569	16.5 10,065	17.0 10,562	17.5 11,059	18.1 11,500					
1	WAA-12SL	Win				15.7 6,891	16.4 7,536	17.1 8,182	17.7 8,828	18.4 9,473	19.0 10,119	19.7 10,765	20.4 11,411					
1	RemTGT	Win				16.0 7,040	16.5 7,796	17.1 8,553	17.7 9,309	18.3 10,066	18.8 10,822	19.4 11,579						
1	GreenDuster	Win				16.0 7,573	16.6 8,238	17.2 8,903	17.8 9,568	18.4 10,233	19.0 10,898	19.6 11,563						
1	DR-XL-1	Win				15.3 7,219	16.0 7,950	16.7 8,682	17.4 9,413	18.1 10,145	18.7 10,877	19.4 11,608						
1	DR-J-XL-1	Win				15.4 8,747	16.1 9,296	16.7 9,846	17.4 10,395	18.1 10,945	18.7 11,494							
1	WJII-12100	Win						16.1 6,079	16.8 6,974	17.6 7,868	18.3 8,763	19.1 9,658	19.8 10,553	20.5 11,447				
1	CB-4100-12	Win				16.1 7,472	16.7 8,058	17.2 8,644	17.8 9,230	18.4 9,817	19.0 10,403	19.6 10,989	20.2 11,500					
1	CB-8100-12	Win				16.3 8,868	16.8 9,487	17.3 10,107	17.8 10,727	18.4 11,346								
1	WAA-12SL	Rem				15.6 8,301	16.2 8,892	16.8 9,483	17.5 10,074	18.1 10,665	18.7 11,256							
1	Rem-TGT	Rem				15.7 7,733	16.3 8,434	16.9 9,135	17.5 9,836	18.1 10,537	18.7 11,238							
1	DR-XL-1	Rem				15.0 8,125	15.7 8,855	16.3 9,585	17.0 10,316	17.7 11,046								
1	DRA-12	Rem				15.1 9,170	15.8 9,725	16.4 10,280	17.0 10,835	17.7 11,390								
1	DR-J-XL-1	Rem				15.2 8,486	15.8 9,170	16.5 9,854	17.1 10,538	17.8 11,222								
1	WJII-12100	Rem				15.5 7,322	16.1 7,949	16.7 8,576	17.3 9,203	18.0 9,830	18.6 10,457	19.2 11,084						
1	GreenDuster	Rem				15.2 8,181	15.9 8,967	16.5 9,754	17.2 10,540	17.9 11,326								
1	WAA-12SL	CCI				16.1 7,489	16.8 8,077	17.4 8,665	18.0 9,253	18.6 9,840	19.2 10,428	19.8 11,016						
1	Rem-TGT	CCI				16.1 7,639	16.7 8,242	17.2 8,845	17.8 9,448	18.4 10,051	19.0 10,654	19.6 11,257						
1	DR-XL-1	CCI				15.9 8,191	16.6 8,746	17.2 9,300	17.8 9,855	18.4 10,409	19.0 10,964	19.6 11,500						
1	DRA-12	CCI				15.5 8,808	16.2 9,206	16.8 9,604	17.5 10,003	18.2 10,401	18.8 10,799	19.5 11,197						
1	DR-J-XL-1	CCI				15.6 7,911	16.3 8,461	16.9 9,012	17.5 9,563	18.2 10,114	18.8 10,665	19.5 11,215						
1	WAA-12SL	CCI				16.2 7,160	16.8 7,650	17.4 8,139	18.0 8,629	18.6 9,118	19.2 9,608	19.8 10,098	20.4 10,587	21.0 11,077				
1	Rem-TGT	CCI				16.2 7,871	16.8 8,394	17.4 8,917	18.1 9,440	18.7 9,964	19.3 10,487	19.9 11,010						
1	GreenDuster	CCI				15.8 8,485	16.4 9,028	17.1 9,570	17.7 10,113	18.4 10,655	19.0 11,198							
1	WAA-12SL	Ched				15.6 8,714	16.2 9,319	16.8 9,923	17.5 10,528	18.1 11,133								
1	Rem-TGT	Ched				15.4 7,879	16.1 8,585	16.7 9,291	17.3 9,997	17.9 10,703	18.5 11,410							
1	DR-XL-1	Ched				15.4 8,635	16.0 9,251	16.7 9,866	17.3 10,481	18.0 11,096								
1	DRA-12	Ched				15.3 8,717	15.9 9,257	16.6 9,797	17.2 10,338	17.9 10,878	18.5 11,418							
1	DR-J-XL-1	Ched				15.6 8,729	16.2 9,355	16.8 9,980	17.4 10,606	18.0 11,231								
1	Rem-TGT	Ched				15.8 8,221	16.4 8,818	17.0 9,415	17.6 10,012	18.2 10,609	18.8 11,206							
1	GreenDuster	Ched				15.4 8,478	16.0 9,126	16.7 9,775	17.3 10,424	18.0 11,072								
1	WAA-12SL	Fed				15.3 9,130	16.0 9,752	16.6 10,374	17.3 10,996									
1	Rem-TGT	Fed				15.1 8,057	15.7 8,681	16.3 9,304	16.9 9,928	17.5 10,552	18.1 11,176							
1	DR-XL-1	Fed				15.4 8,678	16.1 9,375	16.7 10,072	17.3 10,769	17.9 11,465								
1	DRA-12	Fed				15.3 9,277	15.9 9,865	16.6 10,453	17.2 11,041									
1	DR-J-XL-1	Fed				15.3 8,350	15.9 8,970	16.4 9,590	17.0 10,211	17.6 10,831	18.1 11,451							
1	GreenDuster	Fed				15.4 8,625	15.9 9,280	16.5 9,935	17.0 10,590	17.6 11,246								
1	CB-8100-12	Win				16.3 8,868	16.8 9,487	17.3 10,107	17.8 10,727	18.4 11,346								
1	CB-1100-12	Rem				15.8 7,973	16.3 8,547	16.9 9,121	17.5 9,695	18.0 10,269	18.6 10,843	19.2 11,417						
1	CB-8100-12	Rem				15.6 9,318	16.2 9,849	16.8 10,379	17.4 10,910	17.9 11,441								
1	CB-8100-12	Ched				15.7 9,011	16.3 9,630	16.8 10,248	17.4 10,866	18.0 11,484								
1	CB-1100-12	CCI				15.9 7,240	16.5 7,838	17.1 8,436	17.8 9,034	18.4 9,632	19.0 10,230	19.6 10,828	20.2 11,426					
1	CB-8100-12	CCI				15.8 8,773	16.4 9,342	17.0 9,911	17.6 10,480	18.2 11,049								



Accurate Nitro 100 New Formulation - WINCHESTER - WAA - HS (2 Piece)

Shot wt	Wad	Prim	1050 grs Psi	1100 grs Psi	1125 grs Psi	1150 grs Psi	1175 grs Psi	1200 grs Psi	1225 grs Psi	1250 grs Psi	1275 grs Psi	1300 grs Psi	1325 grs Psi	1350 grs Psi	1375 grs Psi	1400 grs Psi	1425 grs Psi	1450 grs Psi
7/8	WAA-12L	Win							16.3 7,251	16.9 7,753	17.5 8,254	18.1 8,756	18.7 9,257	19.3 9,759	19.9 10,260	20.5 10,762		
7/8	WAA-12SL	Win							16.4 7,698	17.0 8,151	17.5 8,605	18.1 9,059	18.7 9,513	19.2 9,967	19.8 10,421	20.4 10,875		
7/8	Rem-TGT	Win							16.4 7,336	16.9 7,860	17.5 8,384	18.0 8,909	18.6 9,433	19.1 9,957	19.6 10,481	20.2 11,005		
7/8	DR-XL-1	Win							16.1 7,908	16.7 8,413	17.2 8,918	17.8 9,424	18.3 9,929	18.9 10,434	19.4 10,939	20.0 11,444		
7/8	DR-XXL	Win						16.4 6,647	16.9 7,116	17.4 7,585	18.0 8,055	18.5 8,524	19.0 8,993	19.5 9,463	20.0 9,932	20.5 10,401		
7/8	CB-0178-12	Win							16.5 6,697	17.1 7,159	17.7 7,621	18.2 8,083	18.8 8,545	19.4 9,006	20.0 9,468	20.6 9,930		
7/8	CB-4100-12B	Win							16.1 6,661	16.7 7,154	17.3 7,647	17.9 8,140	18.5 8,633	19.1 9,126	19.7 9,619	20.3 10,112		
7/8	GreenDuster	Win							16.0 8,461	16.5 8,965	17.1 9,469	17.7 9,972	18.3 10,476	18.8 10,980	19.4 11,483			
7/8	WAA-12L	Rem						16.2 6,446	16.7 7,032	17.2 7,618	17.7 8,205	18.3 8,791	18.8 9,377	19.3 9,963	19.8 10,549	20.3 11,136		
7/8	WAA-12SL	Rem						15.8 6,228	16.3 6,869	16.8 7,510	17.4 8,150	17.9 8,791	18.5 9,432	19.0 10,072	19.5 10,713	20.1 11,354		
7/8	Rem-TGT	Rem						15.8 6,592	16.4 7,146	16.9 7,700	17.4 8,254	18.0 8,807	18.5 9,361	19.0 9,915	19.6 10,469	20.1 11,022		
7/8	WAA-12L	Rem						16.1 7,280	16.7 7,731	17.2 8,182	17.7 8,633	18.3 9,084	18.8 9,535	19.4 9,986	19.9 10,437	20.4 10,888		
7/8	DR-XXL	Rem						15.9 6,553	16.4 7,089	16.9 7,624	17.4 8,160	18.0 8,696	18.5 9,231	19.0 9,767	19.5 10,302	20.0 10,838		
7/8	GreenDuster	Rem							15.7 6,603	16.2 7,428	16.8 8,253	17.4 9,077	18.0 9,902	18.6 10,727	19.2 11,500			
7/8	DRA-12	Rem						15.7 6,588	16.2 7,131	16.7 7,673	17.2 8,216	17.6 8,759	18.1 9,301	18.6 9,844	19.1 10,386	19.6 10,929		
7/8	CB-0178-12	Rem						16.2 6,032	16.7 6,555	17.2 7,078	17.7 7,601	18.2 8,124	18.8 8,647	19.3 9,170	19.8 9,693	20.3 10,216		
7/8	CB-8100-12	Rem						15.9 7,202	16.5 7,661	17.0 8,121	17.6 8,581	18.1 9,041	18.7 9,501	19.2 9,960	19.8 10,420	20.4 10,880		
7/8	DRA-12	Win								16.1 7,881	16.8 8,399	17.4 8,918	18.1 9,436	18.7 9,955	19.4 10,473	20.0 10,991		
7/8	CB-8100-12	Win						15.9 6,997	16.5 7,529	17.0 8,060	17.6 8,591	18.1 9,122	18.6 9,654	19.2 10,185	19.7 10,716	20.3 11,247		
7/8	WAA-12L	CCI							15.8 6,523	16.6 7,160	17.3 7,796	18.0 8,433	18.7 9,070	19.4 9,706	20.1 10,343	20.9 10,980		
7/8	WAA-12SL	CCI							16.0 7,349	16.7 7,868	17.3 8,388	18.0 8,907	18.6 9,426	19.3 9,946	19.9 10,465	20.6 10,984		
7/8	Rem-TGT	CCI						15.7 7,152	16.3 7,584	16.8 8,016	17.4 8,447	17.9 8,879	18.5 9,310	19.0 9,742	19.6 10,174	20.1 10,605		
7/8	DR-XL-1	CCI							16.0 7,149	16.6 7,720	17.1 8,291	17.7 8,861	18.3 9,432	18.9 10,002	19.5 10,573	20.0 11,143		
7/8	DRA-12	CCI							16.1 6,979	16.7 7,453	17.4 7,926	18.0 8,400	18.6 8,874	19.3 9,347	19.9 9,821	20.5 10,294		
7/8	DR-XXL	CCI							16.8 6,288	17.4 6,857	17.9 7,426	18.5 7,994	19.0 8,563	19.6 9,131	20.2 9,700	20.7 10,269		
7/8	CB-0178-12	CCI							16.4 6,816	17.0 7,272	17.6 7,727	18.2 8,182	18.8 8,637	19.4 9,093	20.0 9,548	20.5 10,003		
7/8	CB-8100-12	CCI							16.2 7,344	16.8 7,819	17.4 8,293	18.0 8,768	18.7 9,242	19.3 9,717	19.9 10,191	20.5 10,666		
7/8	CB-4100-12B	CCI						16.3 6,177	16.8 6,651	17.3 7,124	17.9 7,598	18.4 8,072	18.9 8,546	19.5 9,020	20.0 9,494	20.5 9,968		
7/8	GreenDuster	CCI							16.1 8,642	16.7 9,053	17.3 9,465	17.9 9,877	18.5 10,289	19.1 10,701	19.7 11,113	20.3 11,500		
7/8	WAA-12L	CCI						15.8 7,019	16.4 7,543	17.0 8,068	17.6 8,592	18.2 9,116	18.8 9,640	19.4 10,165	20.0 10,689	20.6 11,213		
7/8	WAA-12SL	CCI						16.0 7,378	16.6 7,841	17.2 8,305	17.7 8,769	18.3 9,232	18.9 9,696	19.4 10,160	20.0 10,623	20.6 11,087		
7/8	DR-XL-1	Rem						15.0 6,694	15.6 7,373	16.2 8,051	16.8 8,730	17.4 9,408	18.0 10,087	18.6 10,765	19.2 11,444			
7/8	DR-J-XL-1	Win						14.9 8,041	15.5 8,564	16.1 9,087	16.7 9,610	17.3 10,133	17.9 10,656	18.4 11,179				
7/8	WJII--12100	Win						15.9 6,943	16.4 7,439	17.0 7,935	17.5 8,430	18.0 8,926	18.6 9,421	19.1 9,917	19.7 10,413	20.2 10,908		
7/8	WhiteDuster	Win						16.5 7,695	17.0 8,055	17.5 8,415	18.0 8,775	18.6 9,135	19.1 9,495	19.6 9,855	20.1 10,216	20.6 10,576		
7/8	DR-J-XL-1	Rem						15.5 7,139	16.0 7,793	16.6 8,447	17.2 9,102	17.7 9,756	18.3 10,410	18.8 11,064				
7/8	WJII--12100	Rem						16.2 6,343	16.6 6,926	17.1 7,508	17.6 8,091	18.0 8,674	18.5 9,256	19.0 9,839	19.4 10,421	19.9 11,004		
7/8	CB-4100-12B	Rem						15.6 6,853	16.2 7,275	16.8 7,696	17.4 8,117	18.0 8,538	18.6 8,960	19.2 9,381	19.8 9,802	20.4 10,224		
7/8	WhiteDuster	Rem						16.0 7,039	16.6 7,558	17.1 8,076	17.6 8,595	18.2 9,113	18.7 9,632	19.3 10,150	19.8 10,669	20.3 11,187		
7/8	DR-J-XL-1	CCI							15.9 6,686	16.5 7,443	17.1 8,200	17.7 8,957	18.2 9,714	18.8 10,471	19.4 11,228			
7/8	WJII--12100	CCI						16.3 6,048	16.9 6,618	17.5 7,188	18.1 7,758	18.7 8,328	19.3 8,898	19.9 9,468	20.5 10,038			
7/8	WhiteDuster	CCI						16.3 6,774	16.9 7,269	17.4 7,764	18.0 8,260	18.5 8,755	19.0 9,251	19.6 9,746	20.1 10,242	20.7 10,737		
7/8	WAA-12L	Ched						15.5 6,685	16.1 7,297	16.7 7,908	17.3 8,519	17.8 9,130	18.4 9,742	19.0 10,353	19.6 10,964			
7/8	WAA-12SL	Ched						15.3 7,045	15.9 7,579	16.5 8,114	17.1 8,648	17.7 9,183	18.3 9,717	18.9 10,252	19.5 10,786	20.1 11,321		
7/8	Rem-TGT	Ched						15.2 7,343	15.8 7,840	16.4 8,337	17.0 8,834	17.6 9,331	18.2 9,828	18.8 10,325	19.4 10,822	20.0 11,319		
7/8	DR-XL-1	Ched						15.3 6,409	15.9 7,135	16.4 7,861	17.0 8,587	17.6 9,312	18.2 10,038	18.7 10,764	19.3 11,490			
7/8	DR-XXL	Ched						16.1 6,389	16.6 6,979	17.1 7,569	17.7 8,159	18.2 8,749	18.7 9,340	19.2 9,930	19.8 10,520	20.3 11,120		
7/8	DRA-12	Ched						15.0 7,550	15.6 8,064	16.3 8,579	16.9 9,094	17.5 9,608	18.1 10,123	18.8 10,637	19.4 11,152			
7/8	DR-J-XL-1	Ched						14.7 7,720	15.3 8,266	16.0 8,811	16.6 9,357	17.3 9,903	17.9 10,448	18.6 10,994	19.3 11,500			
7/8	WJII--12100	Ched						15.8 6,932	16.3 7,452	16.8 7,972	17.4 8,493	17.9 9,013	18.5 9,533	19.0 10,053	19.6 10,573	20.1 11,093		
7/8	CB-0178-12	Ched						15.4 6,375	16.0 6,895	16.6 7,415	17.3 7,935	17.9 8,455	18.5 8,975	19.2 9,495	19.8 10,015	20.4 10,535		
7/8	CB-8100-12	Ched						15.8 6,877	16.4 7,510	16.9 8,142	17.4 8,775	18.0 9,408	18.5 10,041	19.0 10,673	19.6 11,306			
7/8	CB-4100-12B	Ched						15.2 7,286	15.9 7,657	16.5 8,028	17.2 8,399	17.8 8,770	18.5 9,140	19.1 9,511	19.8 9,882	20.4 10,253		



Accurate Nitro 100 New Formulation - WINCHESTER - WAA - HS (2 Piece) continued

Shot wt	Wad	Prim	1050 grs Psi	1100 grs Psi	1125 grs Psi	1150 grs Psi	1175 grs Psi	1200 grs Psi	1225 grs Psi	1250 grs Psi	1275 grs Psi	1300 grs Psi	1325 grs Psi	1350 grs Psi	1375 grs Psi	1400 grs Psi	1425 grs Psi	1450 grs Psi
7/8	WhiteDuster	Ched						15.5 7,023	16.1 7,537	16.7 8,052	17.4 8,567	18.0 9,082	18.7 9,597	19.3 10,111	19.9 10,626	20.6 11,141		
7/8	GreenDuster	Ched						15.0 8,391	15.6 8,853	16.2 9,315	16.9 9,777	17.5 10,239	18.1 10,701	18.8 11,162				
7/8	WAA-12SL	Fed						15.5 7,892	16.0 8,399	16.6 8,906	17.1 9,412	17.6 9,919	18.2 10,426	18.7 10,933	19.2 11,439			
7/8	WAA-12L	Fed						15.3 8,013	15.9 8,482	16.5 8,951	17.0 9,420	17.6 9,889	18.2 10,358	18.8 10,827	19.4 11,296			
7/8	DR-XL-1	Fed						15.4 8,451	15.9 8,985	16.3 9,519	16.8 10,052	17.3 10,586	17.8 11,120					
7/8	Rem-TGT	Fed						15.6 7,902	16.1 8,448	16.6 8,995	17.1 9,541	17.6 10,088	18.2 10,634	18.7 11,181				
7/8	DR-XXL	Fed						15.5 7,553	16.1 8,101	16.6 8,649	17.2 9,198	17.7 9,746	18.3 10,294	18.8 10,842	19.4 11,391			
7/8	DRA-12	Fed						15.4 8,474	15.9 8,972	16.4 9,471	17.0 9,969	17.5 10,468	18.0 10,967	18.6 11,465				
7/8	DR-J-XL-1	Fed						15.5 8,174	16.0 8,757	16.5 9,341	17.0 9,924	17.5 10,507	18.0 11,091					
7/8	WJII-12100	Fed						14.5 6,725	15.1 7,354	15.8 7,982	16.4 8,610	17.1 9,239	17.7 9,867	18.4 10,496	19.0 11,124			
7/8	CB-0178-12	Fed						15.0 7,443	15.6 7,935	16.2 8,427	16.9 8,918	17.5 9,410	18.1 9,901	18.7 10,393	19.3 10,885	19.9 11,376		
7/8	CB-8100-12	Fed						15.3 7,951	15.9 8,511	16.5 9,071	17.0 9,631	17.6 10,191	18.2 10,751	18.8 11,311				
7/8	CB-4100-12B	Fed						15.4 6,996	16.0 7,479	16.5 7,963	17.1 8,446	17.7 8,929	18.2 9,412	18.8 9,895	19.4 10,379	19.9 10,862		
7/8	WhiteDuster	Fed						15.0 7,570	15.6 8,082	16.3 8,593	16.9 9,104	17.5 9,616	18.1 10,127	18.7 10,639	19.3 11,150			
7/8	GreenDuster	Fed						15.4 8,379	15.9 8,923	16.5 9,468	17.0 10,012	17.5 10,556	18.0 11,101					
1	WAA-12SL	Win					15.9 8,077	16.4 8,673	17.0 9,270	17.6 9,866	18.2 10,462	18.8 11,058						
1	Rem-TGT	Win					15.7 8,085	16.3 8,741	16.9 9,397	17.5 10,053	18.1 10,708	18.7 11,364						
1	DR-XL-1	Win					15.7 8,697	16.3 9,202	16.9 9,706	17.5 10,211	18.1 10,715	18.7 11,220						
1	DR-J-XL-1	Win					15.8 8,461	16.4 9,023	17.0 9,585	17.5 10,148	18.1 10,710	18.7 11,272						
1	Green Duster	Win					15.4 9,116	16.1 9,603	16.8 10,091	17.4 10,579	18.1 11,066							
1	WAA-12SL	Rem					15.1 8,230	15.7 8,935	16.4 9,640	17.0 10,345	17.6 11,050							
1	Rem-TGT	Rem					15.3 8,657	15.9 9,319	16.5 9,981	17.1 10,644	17.7 11,306							
1	DR-XL-1	Rem					15.3 8,872	15.8 9,586	16.4 10,299	17.0 11,013								
1	DR-J-XL-1	Rem					15.5 8,999	16.0 9,579	16.5 10,158	17.1 10,737	17.6 11,317							
1	Green Duster	Rem					15.2 9,602	15.8 10,156	16.4 10,709	17.0 11,263								
1	WAA-12SL	CCI					15.2 9,306	15.8 9,858	16.4 10,410	17.0 10,963	17.6 11,500							
1	Rem-TGT	CCI					15.6 9,012	16.2 9,592	16.7 10,172	17.3 10,753	17.8 11,333							
1	DR-XL-1	CCI					15.3 9,539	15.9 10,084	16.5 10,630	17.2 11,176								
1	DR-J-XL-1	CCI					15.5 9,397	16.0 9,936	16.6 10,475	17.2 11,013	17.8 11,500							
1	Green Duster	CCI					15.0 9,914	15.7 10,453	16.3 10,993	17.0 11,500								
1	WAA-12SL	Ched					15.7 8,766	16.3 9,315	16.9 9,864	17.5 10,413	18.1 10,962	18.7 11,500						
1	Rem-TGT	Ched					15.8 8,699	16.4 9,242	17.0 9,786	17.5 10,329	18.1 10,873	18.7 11,416						
1	DR-XL-1	Ched					15.3 9,228	15.9 9,862	16.5 10,496	17.1 11,130								
1	DR-J-XL-1	Ched					15.5 9,174	16.1 9,688	16.7 10,202	17.3 10,716	17.9 11,230							
1	Green Duster	Ched					15.2 9,773	15.8 10,361	16.4 10,949	17.0 11,500								
1	WAA-12SL	Fed					15.7 9,275	16.2 9,853	16.8 10,432	17.3 11,010	17.8 11,500							
1	Rem-TGT	Fed					15.5 9,101	16.1 9,706	16.7 10,310	17.3 10,915	17.9 11,500							
1	DR-XL-1	Fed					15.5 9,355	16.0 10,006	16.6 10,658	17.2 11,310								
1	DR-J-XL-1	Fed					15.4 9,789	16.0 10,351	16.5 10,914	17.1 11,476								
1	Green Duster	Fed					15.3 9,342	16.0 9,979	16.6 10,616	17.2 11,253								
1	WAA-12L	Win					15.5 9,495	16.1 9,956	16.7 10,417	17.3 10,878	18.0 11,339							
1	WAA-12	Win					15.5 9,113	16.0 9,768	16.5 10,423	17.1 11,079								
1	Rem-RXP	Win					15.6 9,664	16.2 10,171	16.7 10,677	17.3 11,184								
1	Rem-Fig8	Win					15.9 8,740	16.4 9,322	17.0 9,904	17.5 10,486	18.1 11,068							



Accurate Nitro 100 New Formulation - WINCHESTER - WAA - HS (2 Piece) continued

Shot wt	Wad	Prim	1075		1100		1125		1150		1175		1200		1225		1250		1275		1300		1325		1350		1375		1400		1425		1450	
			grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi
1 1/8	WAA-12	Win	15.0	9,038	15.6	9,806	16.2	10,575	16.7	11,344																								
1 1/8	Rem-Fig8	Win	15.1	9,243	15.7	9,953	16.2	10,663	16.8	11,373																								
1 1/8	Rem-RXP	Win	15.1	9,763	15.7	10,370	16.2	10,978																										
1 1/8	Rem-12-H	Win	15.4	9,499	15.9	10,144	16.4	10,788	16.8	11,432																								
1 1/8	DR-XL-1	Win	14.7	8,912	15.3	9,632	16.0	10,352	16.6	11,072																								
1 1/8	DRA-12	Win	14.7	9,276	15.4	9,998	16.0	10,720	16.6	11,442																								
1 1/8	CB-4100-12-B	Win	15.1	8,621	15.8	9,345	16.4	10,068	17.1	10,792	17.8	11,500																						

Accurate Nitro 100 New Formulation - FEDERAL - Gold Medal Hulls

Shot wt	Wad	Prim	1075		1100		1125		1150		1175		1200		1225		1250		1275		1300		1325		1350		1375		1400		1425		1450	
			grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi
1	CB-6100-12	Fed							16.7	6,553	17.3	7,112	17.8	7,672	18.4	8,231	18.9	8,790	19.5	9,349	20.0	9,909	20.6	10,468	21.1	11,027	21.7	11,500						
1	CB-6100-12	Ched							16.9	6,562	17.4	7,106	18.0	7,649	18.5	8,193	19.0	8,736	19.5	9,280	20.0	9,823	20.6	10,366	21.1	10,910	21.6	11,500						
1	CB-6100-12	CCI							16.3	7,113	16.9	7,598	17.5	8,083	18.1	8,568	18.7	9,054	19.3	9,539	19.8	10,024	20.4	10,510	21.0	10,995	21.6	11,480						
1	CB-6100-12	Rem							16.6	6,789	17.1	7,279	17.7	7,769	18.2	8,258	18.8	8,748	19.3	9,238	19.9	9,727	20.4	10,217	21.0	10,707	21.5	11,196						
1	CB-6100-12	Win									18.0	6,530	18.5	7,103	19.0	7,677	19.4	8,251	19.9	8,825	20.3	9,399	20.8	9,973	21.3	10,547	21.7	11,121						
1	FED-50	Win							17.6	6,628	18.0	7,283	18.5	7,938	19.0	8,594	19.4	9,249	19.9	9,904	20.4	10,560	20.8	11,215										
1	FED-50	Rem							16.4	8,099	16.9	8,675	17.5	9,251	18.1	9,828	18.7	10,404	19.2	10,980	19.8	11,500												
1	FED-50	CCI							17.3	7,277	17.8	7,965	18.2	8,652	18.7	9,340	19.2	10,028	19.6	10,715	20.1	11,403												
1	FED-50	Ched							17.1	7,192	17.6	7,861	18.1	8,531	18.6	9,201	19.1	9,871	19.5	10,541	20.0	11,211												
1	FED-50	Fed							17.0	7,485	17.6	7,978	18.2	8,470	18.8	8,963	19.4	9,455	20.0	9,948	20.6	10,440	21.2	10,933	21.8	11,426								
1 1/8	FED-53	CCI	15.6	7,156	16.4	7,916	17.1	8,676	17.9	9,436	18.6	10,196	19.3	10,956																				
1 1/8	CB-6118-12	CCI			15.5	7,315	16.3	8,073	17.2	8,830	18.0	9,587	18.8	10,344	19.6	11,101																		
1 1/8	CB-3118-12AR	CCI			15.6	7,189	16.4	8,167	17.1	9,145	17.9	10,124	18.7	11,102																				
1 1/8	CB-2118-12	CCI			15.8	6,466	16.4	7,558	17.1	8,650	17.8	9,742	18.5	10,834																				
1 1/8	CB-2100-12	CCI	16.2	6,234	16.7	7,176	17.2	8,118	17.7	9,059	18.2	10,001	18.7	10,943																				
1 1/8	FED-53	Win	14.9	7,209	15.7	8,182	16.4	9,156	17.1	10,130	17.9	11,104																						
1 1/8	CB-6118-12	Win	15.2	7,236	15.8	7,952	16.5	8,668	17.1	9,383	17.8	10,099	18.5	10,815	19.1	11,500																		
1 1/8	CB-3118-12AR	Win	15.8	7,870	16.3	8,629	16.8	9,387	17.4	10,145	17.9	10,904																						
1 1/8	CB-2118-12	Win	15.2	6,953	15.8	7,764	16.5	8,576	17.1	9,387	17.8	10,198	18.4	11,009																				
1 1/8	CB-2100-12	Win			16.4	6,597	17.0	7,438	17.6	8,279	18.2	9,120	18.8	9,961	19.4	10,802																		
1 1/8	FED-53	Rem	14.9	7,162	15.6	8,276	16.2	9,391	16.8	10,505																								
1 1/8	CB-6118-12	Rem	15.4	8,326	16.0	8,982	16.6	9,639	17.1	10,296	17.7	10,953																						
1 1/8	CB-3118-12AR	Rem	15.1	7,855	15.7	8,767	16.2	9,678	16.8	10,590	17.3	11,500																						
1 1/8	CB-2118-12	Rem	15.4	8,337	15.9	9,194	16.4	10,051	16.9	10,908																								
1 1/8	CB-2100-12	Rem	16.1	7,563	16.5	8,176	17.0	8,790	17.4	9,404	17.8	10,018	18.2	10,632	18.6	11,246																		
1 1/8	FED-53	Ched	15.5	9,002	16.1	9,651	16.7	10,301	17.3	10,950																								
1 1/8	CB-6118-12	Ched	15.6	8,049	16.1	8,627	16.7	9,204	17.2	9,781	17.7	10,358	18.3	10,936	18.8	11,500																		
1 1/8	CB-3118-12AR	Ched	15.4	8,510	16.0	9,119	16.6	9,728	17.1	10,338	17.7	10,947	18.3	11,500																				
1 1/8	CB-2118-12	Ched	15.8	8,555	16.3	9,234	16.8	9,914	17.3	10,594	17.8	11,274																						
1 1/8	CB-2100-12	Ched	16.0	8,243	16.5	8,849	17.0	9,454	17.4	10,060	17.9	10,666	18.4	11,272																				
1 1/8	FED-53	Fed	15.9	8,895	16.4	9,513	17.0	10,132	17.5	10,750	18.0	11,368																						
1 1/8	CB-6118-12	Fed	16.0	8,108	16.5	8,609	17.0	9,110	17.5	9,611	18.1	10,112	18.6	10,613	19.1	11,114																		
1 1/8	CB-3118-12AR	Fed	15.6	8,442	16.2	9,013	16.7	9,583	17.2	10,153	17.7	10,723	18.3	11,293																				
1 1/8	CB-2118-12	Fed	16.1	8,661	16.6	9,171	17.1	9,682	17.6	10,192	18.1	10,702	18.6	11,212																				
1 1/8	CB-2100-12	Fed	16.4	7,588	16.9	8,151	17.4	8,715	17.9	9,278	18.3	9,842	18.8	10,405	19.3	10,969	19.8	11,500																
1	FED-50	Fed							18.0	6,735	18.5	7,227	19.0	7,718	19.5	8,210	20.0	8,701	20.5	9,193	21.0	9,684	21.5	10,175	22.0	10,667	22.5	11,158						
1	FED-50	Fed							17.5	7,362	18.0	7,890	18.5	8,419	19.1	8,949	19.6	9,477	20.1	10,005	20.7	10,534	21.2	11,063										



Accurate Solo 1000 - REMINGTON - STS - Hulls

Shot wt	Wad	Prim	1050		1075		1100		1125		1150		1175		1200		1225		1250		1275		1300		1325		1350		1375		1400		1425	
			grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi
1 1/8	WAA-12SL	Win	16.7	7854	17.1	8552	17.5	9251	17.9	9949	18.3	10647	18.8	11346																				
1 1/8	WAA-12T	Win	16.3	7791	16.9	8381	17.5	8972	18.1	9563	18.7	10153	19.3	10744	19.9	11335																		
1 1/8	WAA-12	Win	16.2	7434	16.8	8115	17.4	8796	17.9	9477	18.5	10158	19.1	10839	19.6	11500																		
1 1/8	RemTGT	Win	16.9	7608	17.4	8252	18.0	8895	18.5	9538	19.1	10182	19.7	10825	20.2	11468																		
1 1/8	RemFig8	Win	16.3	7547	16.9	8190	17.5	8833	18.1	9475	18.7	10118	19.4	10761	20.0	11403																		
1 1/8	Rem-RXP	Win	16.2	8284	16.7	8976	17.2	9668	17.7	10360	18.2	11052																						
1 1/8	DR-XL(blue)	Win	16.3	7117	16.9	7832	17.5	8547	18.0	9262	18.6	9977	19.2	10692	19.7	11407																		
1 1/8	DRF8	Win	16.3	6885	17.0	7556	17.6	8227	18.2	8898	18.9	9568	19.5	10239	20.2	10910	20.8	11500																
1 1/8	DRRT	Win	16.6	7029	17.2	7735	17.7	8441	18.3	9147	18.9	9853	19.5	10559	20.0	11265																		
1 1/8	DRA-12	Win	16.4	8260	16.9	8855	17.5	9449	18.0	10043	18.5	10638	19.1	11232																				
1 1/8	DRVersatile	Win	16.1	6620	16.7	7384	17.2	8149	17.8	8913	18.4	9678	18.9	10442	19.5	11207																		
1 1/8	DR WJ-RPL	Win	16.6	6231	17.2	6969	17.8	7708	18.4	8447	19.0	9185	19.5	9924	20.1	10663	20.7	11402																
1 1/8	CB-1100	Win	16.6	7042	17.2	7607	17.8	8172	18.3	8737	18.9	9301	19.5	9866	20.1	10431	20.7	10996	21.2	11500														
1 1/8	CB-0118	Win	16.6	7056	17.1	7739	17.6	8421	18.1	9103	18.6	9785	19.2	10467	19.7	11149																		
1 1/8	CB-1118	Win	16.3	6848	16.9	7578	17.4	8307	18.0	9037	18.5	9767	19.1	10497	19.6	11226																		
1 1/8	CB-3118	Win	16.2	7516	16.8	8170	17.4	8824	18.0	9478	18.7	10132	19.3	10786	19.9	11439																		
1 1/8	CB-8118	Win	16.6	7861	17.1	8494	17.7	9128	18.2	9761	18.8	10394	19.4	11028																				
1 1/8	Blue Duster	Win	16.3	8579	16.8	9211	17.3	9843	17.8	10474	18.4	11106																						
1 1/8	WAA-12SL	Rem	16.1	6491	16.6	7266	17.2	8042	17.8	8818	18.3	9593	18.9	10369	19.4	11145																		
1 1/8	WAA-12	Rem	15.3	6639	16.0	7473	16.6	8308	17.3	9142	18.0	9976	18.6	10810																				
1 1/8	WAA-12T	Rem	16.1	7051	16.5	7728	16.9	8404	17.3	9081	17.7	9757	18.1	10434	18.5	11111																		
1 1/8	Rem-TGT	Rem	15.0	6491	16.3	7227	17.0	7963	17.6	8698	18.3	9434	18.9	10170	19.6	10906	20.3	11500																
1 1/8	Rem-Fig8	Rem	16.5	6774	17.0	7468	17.6	8161	18.1	8854	18.7	9548	19.2	10241	19.7	10935	20.3	11500																
1 1/8	Rem-RXP	Rem	15.4	6368	16.1	7249	16.7	8131	17.4	9013	18.1	9894	18.8	10776	19.5	11500																		
1 1/8	DR-XL-1(blue)	Rem	15.7	6503	16.3	7289	16.9	8076	17.5	8863	18.1	9649	18.7	10436	19.3	11223																		
1 1/8	DRF8	Rem	16.5	7175	17.0	7799	17.5	8423	18.0	9046	18.6	9670	19.1	10293	19.6	10917	20.2	11500																
1 1/8	DRA-12	Rem	15.0	6864	15.8	7753	16.6	8643	17.4	9532	18.2	10422	19.0	11312																				
1 1/8	DR Versatile	Rem	16.2	6649	16.6	7378	17.0	8108	17.5	8837	17.9	9567	18.4	10296	18.8	11026																		
1 1/8	DR-WJ-RPL	Rem			16.8	6313	17.4	7065	18.0	7817	18.6	8568	19.2	9320	19.8	10072	20.4	10824	21.0	11500														
1 1/8	CB-1100	Rem			17.1	6358	17.7	7072	18.2	7786	18.8	8500	19.4	9214	19.9	9928	20.5	10643	21.1															
1 1/8	CB-0118	Rem			16.8	7047	17.4	7798	17.9	8550	18.5	9301	19.1	10053	19.7	10804	20.2	11500																
1 1/8	CB-1118	Rem			16.7	7799	17.3	8436	18.0	9074	18.6	9712	19.2	10349	19.8	10987	20.5	11500																
1 1/8	CB-3118	Rem	16.9	7813	17.4	8434	17.9	9055	18.4	9676	18.9	10298	19.4	10919	19.9	11500																		
1 1/8	CB-8118	Rem	15.6	8566	16.2	9065	16.8	9565	17.3	10064	17.9	10563	18.5	11062	19.1	11500																		
1 1/8	Blue Duster-GT9118	Rem	15.1	9130	15.7	9570	16.4	10009	17.0	10448	17.6	10888	18.3	11327																				
1 1/8	WAA-12SL	CCI	16.0	6287	16.5	6997	16.9	7707	17.4	8417	17.9	9127	18.3	9837	18.8	10547	19.2	11257																
1 1/8	WAA-12L	CCI	14.8	6085	15.4	6975	16.0	7865	16.6	8755	17.3	9645	17.9	10536	18.5	11426																		
1 1/8	WAA-12	CCI	15.0	7230	15.6	8119	16.2	9008	16.8	9897	17.4	10786	18.0	11500																				
1 1/8	WAA-12T	CCI	15.0	7387	15.6	8199	16.3	9012	16.9	9824	17.5	10637	18.2	11449																				
1 1/8	Rem-Fig8	CCI	15.4	7845	16.0	8539	16.6	9234	17.2	9929	17.8	10623	18.4	11318																				
1 1/8	Rem-RXP	CCI	15.7	7758	16.2	8442	16.8	9126	17.4	9810	18.0	10494	18.5	11178																				
1 1/8	Rem-TGT	CCI	15.8	7977	16.4	8515	17.0	9053	17.5	9591	18.1	10129	18.7	10667	19.3	11205																		
1 1/8	DRRT	CCI	15.6	8822	16.2	9220	16.8	9618	17.4	10016	18.1	10415	18.7	10813	19.3	11211																		
1 1/8	DRRT	CCI	16.2	6805	16.7	7484	17.2	8163	17.8	8842	18.3	9521	18.8	10200	19.3	10879	19.9	11500																
1 1/8	DR-XL-1	CCI	15.7	7423	16.3	8096	16.8	8769	17.4	9442	18.0	10115	18.6	10787	19.1	11460																		
1 1/8	WAA-12	CCI	15.3	7848	15.9	8518	16.5	9188	17.0	9857	17.6	10527	18.2	11197																				
1 1/8	DRF8	CCI	16.0	6691	16.5	7433	17.1	8176	17.6	8919	18.2	9661	18.7	10404	19.3	11147																		
1 1/8	DRA-12	CCI	15.6	7902	16.2	8614	16.8	9325	17.4	10037	18.0	10748	18.6	11459																				
1 1/8	DR Versatile	CCI	15.3	7722	15.9	8417	16.5	9112	17.1	9806	17.8	10501	18.4	11196																				
1 1/8	DR-WJ-RPL	CCI	15.7	6791	16.3	7431	16.9	8072	17.4	8712	18.0	9353	18.5	9993	19.1	10634	19.7	11274																
1 1/8	WAA-12SL	Ched	15.6	6988	16.1	7692	16.7	8395	17.3	9098	17.9	9801	18.5	10504	19.0	11207																		
1 1/8	WAA-12	Ched	15.4	6885	16.0	7600																												



Accurate Solo 1000 - WAA - HS - Hulls *continued*

Shot wt	Wad	Prim	1050		1075		1100		1125		1150		1175		1200		1225		1250		1275		1300		1325		1350		1375		1400		1425	
			grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi	grs	Psi
1 1/8	CB-0118	Win	16.2	7841	16.8	8478	17.3	9115	17.9	9752	18.5	10389	19.1	11026																				
1 1/8	CB-1118	Win	16.2	7586	16.8	8180	17.4	8774	18.1	9368	18.7	9962	19.3	10556	19.9	11150																		
1 1/8	CB-8118	Win	16.3	7985	16.9	8617	17.5	9249	18.1	9881	18.7	10512	19.3	11144																				
1 1/8	CB-3118-12A	Win	16.5	7651	17.0	8282	17.6	8914	18.1	9545	18.6	10177	19.2	10808	19.7	11439																		
1 1/8	Blue Duster	Win	16.2	8126	16.7	8878	17.3	9631	17.8	10384	18.3	11137																						
1 1/8	WAA-12SL	Rem	15.7	8203	16.2	8961	16.7	9719	17.2	10477	17.7	11235																						
1 1/8	WAA-12	Rem	15.2	7996	15.8	8738	16.4	9480	17.0	10222	17.6	10964																						
1 1/8	WAA-12T	Rem	15.4	8067	16.0	8854	16.6	9641	17.2	10428	17.7	11215																						
1 1/8	Rem-Fig8	Rem	15.8	8287	16.4	9015	17.0	9744	17.5	10473	18.1	11201																						
1 1/8	RXP-12	Rem	15.9	8152	16.5	8836	17.1	9520	17.7	10203	18.2	10887	18.8	11500																				
1 1/8	DR-XL	Rem	15.7	7638	16.2	8390	16.8	9141	17.4	9893	18.0	10645	18.5	11397																				
1 1/8	DRF8	Rem	15.6	7640	16.1	8324	16.7	9008	17.2	9692	17.7	10376	18.2	11060																				
1 1/8	DRA-12	Rem	15.7	7730	16.3	8417	16.8	9103	17.4	9790	17.9	10476	18.5	11163																				
1 1/8	DRVersatile	Rem	15.7	7757	16.2	8497	16.8	9237	17.3	9977	17.9	10717	18.4	11457																				
1 1/8	DRWJ-RPL	Rem	15.9	7291	16.5	7886	17.2	8481	17.8	9075	18.4	9670	19.0	10264	19.6	10859	20.2	11453																
1 1/8	WJ-12118	Rem	16.1	7101	16.5	7728	17.0	8354	17.5	8981	17.9	9608	18.4	10235	18.8	10861	19.3	11488																
1 1/8	CB-1100	Rem	15.9	6885	16.5	7632	17.0	8380	17.6	9127	18.1	9875	18.7	10622	19.2	11370																		
1 1/8	CB-0118	Rem	15.7	7066	16.2	7831	16.8	8596	17.4	9361	18.0	10126	18.6	10891																				
1 1/8	CB-1118	Rem	15.1	7209	15.8	7950	16.6	8690	17.3	9431	18.0	10172	18.7	10913																				
1 1/8	CB-3118	Rem	16.1	7480	16.6	8118	17.1	8756	17.6	9394	18.2	10033	18.7	10671	19.2	11309																		
1 1/8	CB-8118	Rem	15.8	7914	16.5	8526	17.1	9138	17.7	9750	18.3	10363	19.0	10976	19.6	11500																		
1 1/8	Blue Duster	Rem	15.8	7711	16.3	8477	16.9	9242	17.5	10008	18.1	10774	18.7	11500																				
1 1/8	WAA-12	CCI	14.6	6131	15.3	7073	16.0	8015	16.6	8957	17.3	9898	18.0	10840																				
1 1/8	WAA-WT	CCI	15.0	7255	15.6	7990	16.3	8724	16.9	9459	17.5	10194	18.2	10929	18.8	11500																		
1 1/8	Rem-Fig8	CCI	15.8	7342	16.3	8009	16.9	8676	17.5	9343	18.1	10010	18.6	10677	19.2	11344																		
1 1/8	Rem-RXP	CCI	15.7	7298	16.3	8065	16.8	8831	17.4	9598	18.0	10365	18.5	11131																				
1 1/8	DR-XL-1	CCI	15.7	7402	16.3	7953	16.9	8505	17.4	9057	18.0	9609	18.5	10161	19.1	10713	19.7	11265																
1 1/8	DRF8	CCI	15.6	6542	16.2	7378	16.8	8213	17.4	9049	18.0	9884	18.6	10720	19.2	11500																		
1 1/8	DRS-12	CCI	15.4	7201	16.1	7878	16.7	8556	17.4	9234	18.0	9912	18.7	10590	19.3	11268																		
1 1/8	DR Versatile	CCI	14.9	7165	15.6	7926	16.3	8688	17.0	9449	17.7	10211	18.4	10972	19.1	11500																		
1 1/8	DR WJ-RPL	CCI	15.4	6996	16.0	7660	16.7	8324	17.3	8988	18.0	9652	18.6	10316	19.3	10980	19.9	11500																
1 1/8	WAA-12SL	Ched	15.5	7441	16.1	8079	16.6	8718	17.2	9356	17.8	9995	18.4	10633	18.9	11272																		
1 1/8	WAA-12	Ched	14.8	6800	15.5	7514	16.2	8228	16.8	8942	17.5	9656	18.2	10370	18.9	11084																		
1 1/8	WAA-12T	Ched	15.1	7467	15.7	8061	16.4	8656	17.0	9251	17.6	9846	18.2	10440	18.9	11035	19.5	11500																
1 1/8	DRF8	Ched	14.9	6640	15.5	7362	16.2	8084	16.9	8806	17.5	9528	18.2	10250	18.9	10972	19.5	11500																
1 1/8	Rem-RXP	Ched	15.3	6906	15.9	7520	16.5	8133	17.1	8747	17.7	9361	18.3	9975	18.9	10588	19.5	11202																
1 1/8	DR-XL-1	Ched	15.5	7268	16.0	7897	16.6	8527	17.2	9156	17.7	9786	18.3	10415	18.9	11044	19.5	11500																
1 1/8	DRF8	Ched	15.2	7416	15.8	8051	16.5	8686	17.1	9320	17.7	9955	18.4	10590	19.0	11225																		
1 1/8	DRA-12	Ched	14.7	7265	15.4	7972	16.0	8679	16.7	9386	17.4	10093	18.0	10801	18.7	11500																		
1 1/8	DR Versatile	Ched	14.8	7347	15.5	8057	16.1	8767	16.8	9477	17.4	10187	18.0	10897	18.7	11500																		
1 1/8	DR-WJ-RPL	Ched	15.6	7002	16.2	7584	16.7	8167	17.3	8750	17.9	9333	18.5	9916	19.1	10498	19.7	11081	20.2	11500														
1 1/8	CB-1100	Ched	15.6	6791	16.2	7498	16.7	8205	17.3	8912	17.9	9619	18.4	10326	19.0	11033	19.5	11500																
1 1/8	CB-0118	Ched	15.0	7129	15.6	7804	16.3	8480	16.9	9156	17.6	9831	18.2	10507	18.9	11183																		
1 1/8	CB-1118	Ched	15.4	7084	16.0	7740	16.6	8395	17.2	9051	17.8	9706	18.4	10362	19.0	11017	19.6	11500																
1 1/8	CB-3118	Ched	15.6	7471	16.2	8142	16.8	8813	17.3	9484	17.9	10155	18.5	10826	19.0	11497																		
1 1/8	CB-8118	Ched	15.8	8094	16.4	8662	16.9	9231	17.4	9800	18.0	10369	18.5	10938	19.0	11500																		