

# FEDERAL PREMIUM® RIFLE

ATT.	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	GOLD MEDAL PRIMER	BALLISTIC COEFFICIENT		VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES (10 MPH CROSSWIND)					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE.					TEST BARREL LENGTH INCHES								
				GRAINS	GRAMS			MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	50 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.													
				G1	G7																																	
<b>FEDERAL PREMIUM BIG GAME</b>																																						
NEW	0	1 2	P223TC1	223 Rem.	55	3.56	Trophy Copper	X		3240	2915	2613	2330	2066	1819	1282	1038	834	663	521	404	0.9	3.7	8.8	16.6	27.5	-0.3	⊕	-2.6	-10.3	0.4	1.3	⊕	-6.4	-19.3	-40.2	24	
NEW	0	2	P223S	223 Rem.	55	3.56	Barnes Triple-Shock X Bullet	X		3200	2738	2320	1940	1604	1323	1250	915	657	460	314	214	1.3	5.8	14.1	27.7	47.5	-0.3	⊕	-3.2	-12.9	0.5	1.6	⊕	-8.1	-25.8	-57.5	24	
	0	2	P223Q	223 Rem.	60	3.89	Nosler Partition	X		3160	2737	2350	1998	1679	1403	1330	998	736	532	375	262	1.2	5.3	13.1	25.2	42.9	-0.2	⊕	-3.2	-12.7	0.5	1.6	⊕	-8.0	-24.8	-54.4	24	
	0	1, 2	P223TT3	223 Rem.	62	4.02	Trophy Bonded Tip	X		3050	2680	2339	2024	1736	1480	1281	989	753	564	415	302	1.2	4.9	11.9	22.8	38.4	-0.2	⊕	-3.3	-13.1	0.6	1.7	⊕	-8.1	-24.8	-53.3	24	
	0	2	P22250G	22-250 Rem.	60	3.89	Nosler Partition	X		3500	3043	2630	2253	1908	1601	1632	1234	922	676	485	341	1.1	4.7	11.3	21.6	36.9	-0.3	⊕	-2.3	-9.6	0.2	1.1	⊕	-6.2	-19.3	-42.4	24	
NEW	0	2	P224VLKBTXK1	224 Valkyrie	78	5.05	Barnes Triple-Shock X Bullet	X		2850	2611	2385	2170	1966	1774	1407	1181	985	815	669	545	0.9	3.4	8.2	15.2	24.9	-0.2	⊕	-3.6	-13.4	0.7	1.8	⊕	-8	-23.3	-47.7	24	
	0	2	P243A1	243 Win.	90	5.83	Nosler AccuBond	X		3000	2749	2511	2285	2072	1869	1798	1510	1260	1044	858	698	0.8	3.3	7.7	14.4	23.5	-0.2	⊕	-3.1	-11.7	0.6	1.6	⊕	-7.1	-20.9	-42.6	24	
	0	2	P243TC1	243 Win.	85	5.51	Trophy Copper	X		3200	2947	2708	2481	2265	2061	1933	1639	1384	1162	969	801	0.7	2.9	6.8	12.5	20.5	-0.3	⊕	-2.5	-9.8	0.3	1.3	⊕	-6.0	-17.6	-36.2	24	
NEW	0	2	P243K	243 Win.	85	5.51	Barnes Triple-Shock X Bullet	X		3200	2904	2628	2367	2122	1891	1933	1592	1303	1057	850	675	0.8	3.5	8.1	15.2	24.9	-0.3	⊕	-2.7	-10.3	0.4	1.3	⊕	-6.3	-19	-39.2	24	
NEW	0	2	P243BCH1	243 Win.	95	6.16	Berger Hybrid Hunter	X	0.434	0.223	3050	2829	2619	2418	2226	2043	1962	1688	1446	1233	1045	880	0.6	2.8	6.4	11.9	19.3	-0.2	⊕	-2.9	-10.8	0.5	1.4	⊕	-6.5	-18.9	-38.4	24
	0	2	P243J	243 Win.	95	6.16	Nosler Ballistic Tip	X		3025	2774	2536	2310	2096	1893	1930	1623	1356	1126	927	756	0.8	3.2	7.6	14.2	23.0	-0.2	⊕	-3.0	-11.5	0.5	1.5	⊕	-6.9	-20.4	-41.6	24	
	0	2	P243C	243 Win.	100	6.48	Sierra GameKing BTSP	X		2960	2741	2533	2334	2145	1964	1945	1669	1425	1210	1021	856	0.7	2.9	6.7	12.6	20.4	-0.2	⊕	-3.1	-11.7	0.6	1.6	⊕	-7.0	-20.4	-41.3	24	
	0	2	P243E	243 Win.	100	6.48	Nosler Partition	X		2850	2612	2386	2171	1968	1776	1803	1515	1262	1047	860	701	0.9	3.4	8.2	15.2	24.8	-0.2	⊕	-3.6	-13.4	0.7	1.8	⊕	-8.0	-23.3	-47.6	24	
	0	2	P257B	257 Roberts +P	120	7.78	Nosler Partition	X		2800	2569	2349	2140	1941	1755	2089	1758	1470	1220	1004	821	0.9	3.4	8.2	15.2	25.0	-0.1	⊕	-3.8	-13.9	0.8	1.9	⊕	-8.3	-24.0	-49.2	24	
NEW	0	2	P2506H	25-06 Rem.	100	6.48	Barnes Triple-Shock X Bullet	X		3210	2916	2641	2382	2138	1908	2288	1888	1549	1260	1015	808	0.8	3.4	7.9	15	24.5	-0.3	⊕	-2.6	-10.2	0.4	1.3	⊕	-6.3	-18.8	-38.7	24	
	0	2	P2506A1	25-06 Rem.	110	7.13	Nosler AccuBond	X		3100	2868	2648	2438	2238	2048	2347	2009	1713	1452	1224	1024	0.6	2.8	6.5	12.1	19.8	-0.3	⊕	-2.8	-10.4	0.4	1.4	⊕	-6.3	-18.5	-37.7	24	
	0	2	P2506TC1	25-06 Rem.	100	6.48	Trophy Copper	X		3210	2967	2737	2519	2311	2113	2288	1955	1664	1409	1185	991	0.7	2.7	6.4	11.8	19.3	-0.3	⊕	-2.5	-9.6	0.3	1.2	⊕	-5.9	-17.2	-35.2	24	
	0	2	P2506D	25-06 Rem.	100	6.48	Nosler Ballistic Tip	X		3220	2968	2729	2503	2288	2084	2302	1955	1654	1391	1162	964	0.7	2.8	6.6	12.3	20.1	-0.3	⊕	-2.5	-9.6	0.3	1.2	⊕	-5.9	-17.3	-35.5	24	
	0	2	P2506E	25-06 Rem.	115	7.45	Nosler Partition	X		3030	2785	2553	2333	2124	1925	2344	1981	1665	1390	1152	946	0.7	3.1	7.3	13.7	22.2	-0.2	⊕	-3.0	-11.3	0.5	1.5	⊕	-6.8	-20.1	-40.9	24	
	0	2	P2506C	25-06 Rem.	117	7.58	Sierra GameKing BTSP	X		3030	2797	2577	2366	2166	1975	2385	2033	1725	1454	1219	1014	0.7	3.0	6.9	12.8	20.9	-0.2	⊕	-3.0	-11.1	0.5	1.5	⊕	-6.7	-19.7	-40.0	24	
	0	2	P260B	260 Rem.	120	7.78	Nosler Ballistic Tip	X		2950	2725	2512	2308	2113	1928	2319	1979	1681	1419	1190	990	0.7	3.0	7.0	13.1	21.2	-0.2	⊕	-3.2	-11.9	0.6	1.6	⊕	-7.1	-20.8	-42.1	24	
	0	2	P260A	260 Rem.	140	9.07	Sierra GameKing BTSP	X		2700	2487	2284	2090	1905	1733	2266	1922	1621	1358	1128	934	0.8	3.4	8.1	14.8	24.4	-0.1	⊕	-4.1	-15.0	0.9	2.1	⊕	-8.8	-25.3	-51.9	24	
	0	2	P65CRDTC1	6.5 Creedmoor	120	7.78	Trophy Copper	X		2875	2689	2510	2338	2174	2015	2202	1926	1679	1457	1259	1082	0.7	2.6	6.0	11.1	17.9	-0.2	⊕	-3.3	-12.1	0.6	1.7	⊕	-7.1	-20.8	-41.6	24	
NEW	0	2	P65CRDELTLR1	6.5 Creedmoor	130	8.42	Edge TLR	X	0.545	0.28	2825	2657	2495	2338	2188	2043	2303	2037	1797	1578	1382	1204	0.6	2.5	5.5	10.3	16.6	-0.2	⊕	-3.4	-12.4	0.7	1.7	⊕	-7.2	-21	-41.9	24
NEW	0	2	P65CRDBTSX1	6.5 Creedmoor	130	8.42	Barnes Triple-Shock X Bullet	X		2825	2576	2341	2118	1906	1711	2303	1916	1581	1294	1049	845	0.9	3.7	8.8	16.2	26.9	-0.2	⊕	-3.7	-13.9	0.8	1.9	⊕	-8.3	-24.2	-50	24	
NEW	0	2	P65CRDBCH1	6.5 Creedmoor	135	8.75	Berger Hybrid Hunter	X	0.584	0.303	2775	2620	2469	2324	2184	2049	2308	2057	1828	1619	1430	1258	0.6	2.3	5.3	9.8	15.7	-0.1	⊕	-3.6	-12.8	0.7	1.8	⊕	-7.5	-21.5	-42.7	24
	0	2	P65CRDA1	6.5 Creedmoor	140	9.07	Nosler AccuBond	X	0.509	0.244	2675	2501	2334	2173	2018	1870	2224	1944	1693	1467	1266	1086	0.6	2.7	6.5	11.9	19.2	-0.1	⊕	-4.1	-14.6	-32.4	-58.5	⊕	-8.5	-24.3	-48.4	24
NEW	0	2	P270L	270 Win.	130	8.42	Barnes Triple-Shock X Bullet	X		3060	2804	2562	2333	2115	1909	2703	2269	1895	1571	1292	1052	0.7	3.2	7.5	14.1	23	-0.2	⊕	-2.9	-11.2	0.5	1.5	⊕	-6.7	-20	-40.8	24	
NEW	0	2	P270BCH1	270 Win.	140	9.07	Berger Hybrid Hunter	X	0.528	0.271	2950	2772	2600	2435	2276	2123	2705	2388	2102	1843	1610	1401	0.6	2.4	5.4	9.9	16.2	-0.2	⊕	-3.1	-11.2	0.5	1.5	⊕	-6.6	-19.1	-38.5	24
	0	2	P270A1	270 Win.	140	9.07	Nosler AccuBond	X		2950	2760	2579	2404	2236	2075	2705	2368	2067	1796	1554	1338	1162	0.6	2.5	5.8	10.7	17.4	-0.2	⊕	-3.1	-11.3	0.6	1.5	⊕	-6.7	-19.5	-39.3	24
	0	2	P270ETLR1	270 Win.	136	8.81	Edge TLR	X	0.508	0.255	3000	2813	2633	2460	2294	2135	2718	2389	2093	1828	1589	1376	0.6	2.4	5.5	10.1	16.5	-0.2	⊕	-2.9	-10.8	0.5	1.5	⊕	-6.4	-18.6	-37.5	24
	0	2	P270D	270 Win.	130	8.42	Sierra GameKing BTSP	X		3060	2839	2630	2429	2238	2055	2703	2327	1996	1703	1445	1219	0.6	2.7	6.3	11.7	19.1	-0.3	⊕	-2.8	-10.7	0.5	1.4	⊕	-6.4	-18.8	-38.1	24	
	0	2	P270F	270 Win.	130	8.42	Nosler Ballistic Tip	X		3060	2837	2626	2424	2231	2046	2703	2324	1990	1695	1436	1209	0																







ATT.	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	GOLD MEDAL PRIMER	BALLISTIC COEFFICIENT	MUZZLE VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)	MUZZLE ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)	WIND DRIFT IN INCHES										HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT										TEST BARREL LENGTH INCHES					
				GRAINS	GRAMS						10 MPH CROSSWIND					IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE LONG RANGE					100 YARDS					200 YARDS										
				225	14.58						100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.						
NEW	◊	3	P338A1	338 Win. Magnum	225	14.58	Nosler AccuBond	X	2800	2634	2475	2320	2172	2028	3917	3467	3059	2689	2356	2055	0.6	2.4	5.6	10.3	16.6	-0.2	⊕	-3.5	-12.7	0.7	1.8	⊕	-7.4	-21.4	-42.6	24
NEW	◊	3	P338LTC1	338 Lapua Magnum	250	16.2	Trophy Copper	X	2850	2702	2559	2420	2286	2156	4508	4053	3635	3252	2901	2581	0.6	2.1	4.7	8.7	14	-0.2	⊕	-3.3	-11.8	0.6	1.6	⊕	-6.9	-19.8	-39.4	24
◊	3	P35WT1	35 Whelen	225	14.58	Trophy Bonded Bear Claw	X	2600	2351	2116	1895	1690	1503	3377	2761	2238	1793	1428	1128	1.0	4.4	10.3	19.7	32.4	0.0	⊕	-4.9	-17.3	1.2	2.4	⊕	-10.1	-30.2	-62.2	24	
◊	3	P375T4	375 H&H Magnum	250	16.2	Trophy Bonded Bear Claw	X	2670	2412	2169	1940	1728	1534	3957	3230	2612	2089	1657	1305	1.0	4.4	10.2	19.4	32.1	-0.1	⊕	-4.5	-16.4	1.1	2.3	⊕	-9.6	-28.6	-59.4	24	
◊	4	P375F	375 H&H Magnum	300	19.44	Nosler Partition	X	2440	2230	2031	1841	1666	1504	3966	3313	2747	2259	1850	1506	1.0	4.2	9.7	18.5	30.0	⊕	-0.1	-5.7	-19.7	0.1	⊕	-5.5	-19.3	-43.9	-80.5	24	
◊	3	P4570T4	45-70 Government	300	19.44	Trophy Bonded Bear Claw	X	1850	1612	1401	1227	1099	1011	2280	1731	1307	1003	804	681	2.3	8.7	20.6	37.6	59.3	0.7	⊕	-11.9	-41.6	3.7	5.9	⊕	-23.8	-70.9	-146.5	24	
<b>FEDERAL PREMIUM CAPE-SHOK®</b>																																				
◊	4	P9362SA	9.3x62 Mauser	286	18.53	Swift A-Frame	X	2360	2147	1945	1756	1582	1423	3537	2928	2403	1959	1589	1285	1.2	4.5	10.8	20.2	32.9	0.1	⊕	-6.0	-21.3	1.6	3.0	⊕	-12.3	-36.1	-73.4	24	
◊	4	P9362WH	9.3x62 Mauser	286	18.53	Woodleigh Hydro	X	2360	2049	1763	1509	1295	1133	3537	2666	1974	1446	1065	815	1.7	7.1	17.1	32.6	53.9	0.1	⊕	-6.8	-24.9	1.9	3.4	⊕	-14.7	-45.0	-96.5	24	
◊	4	P9374SA	9.3x74 R	286	18.53	Swift A-Frame	X	2360	2147	1945	1756	1582	1423	3537	2928	2403	1959	1589	1285	1.2	4.5	10.8	20.2	32.9	0.1	⊕	-6.0	-21.3	1.6	3.0	⊕	-12.3	-36.1	-73.4	24	
◊	4	P9374WH	9.3x74 R	286	18.53	Woodleigh Hydro	X	2360	2049	1763	1509	1295	1133	3537	2666	1974	1446	1065	815	1.7	7.1	17.1	32.6	53.9	0.1	⊕	-6.8	-24.9	1.9	3.4	⊕	-14.7	-45.0	-96.5	24	
◊	4	P370SA	370 Sako Magnum	286	18.53	Swift A-Frame	X	2550	2328	2117	1916	1730	1557	4129	3440	2845	2331	1899	1540	0.9	4.1	9.4	17.9	29.4	0.0	⊕	-5.0	-17.6	1.2	2.5	⊕	-10.1	-30.0	-61.5	24	
◊	4	P370WH	370 Sako Magnum	286	18.53	Woodleigh Hydro	X	2450	2132	1839	1576	1349	1172	3812	2887	2147	1578	1156	872	1.6	6.6	16.2	30.9	51.5	0.1	⊕	-6.1	-22.8	1.6	3.1	⊕	-13.6	-41.3	-88.7	24	
◊	4	P375SA	375 H&H Magnum	300	19.44	Swift A-Frame	X	2450	2194	1953	1730	1527	1349	3998	3206	2541	1994	1553	1213	1.3	5.2	12.4	23.3	38.6	0.1	⊕	-5.7	-20.7	1.5	2.9	⊕	-12.1	-35.8	-74.8	24	
◊	4	P375T1	375 H&H Magnum	300	19.44	Trophy Bonded Bear Claw	X	2400	2159	1932	1721	1529	1359	3837	3105	2486	1974	1557	1230	1.3	5.0	12.1	22.6	37.3	⊕	-0.2	-6.3	-21.9	0.1	⊕	-5.9	-21.3	-48.5	-90.7	24	
◊	4	P375T2	375 H&H Magnum	300	19.44	Trophy Bonded Sledgehammer Solid	X	2440	2115	1815	1548	1321	1147	3966	2978	2194	1597	1163	877	1.7	6.9	16.9	32.2	53.6	0.1	⊕	-6.3	-23.4	1.7	3.1	⊕	-13.9	-42.6	-91.6	24	
◊	4	P375WH	375 H&H Magnum	300	19.44	Woodleigh Hydro	X	2500	2179	1881	1614	1380	1195	4163	3161	2357	1735	1269	951	1.5	6.4	15.8	30.0	50.1	0.1	⊕	-5.8	-21.7	1.5	2.9	⊕	-13.0	-39.4	-84.6	24	
◊	4	P416SA	416 Rigby	400	25.92	Swift A-Frame	X	2350	2128	1917	1722	1542	1381	4905	4021	3264	2633	2111	1693	1.2	4.7	11.5	21.5	35.2	⊕	-0.3	-6.6	-22.6	0.1	⊕	-6.1	-21.9	-49.4	-91.6	24	
◊	4	P416T1	416 Rigby	400	25.92	Trophy Bonded Bear Claw	X	2300	2084	1880	1691	1517	1362	4698	3859	3139	2540	2043	1647	1.2	4.8	11.6	21.6	35.4	0.2	⊕	-6.4	-23.0	1.8	3.2	⊕	-13.3	-38.6	-79.3	24	
◊	4	P416T2	416 Rigby	400	25.92	Trophy Bonded Sledgehammer Solid	X	2370	2073	1798	1551	1339	1171	4988	3815	2870	2137	1591	1217	1.6	6.6	16.1	30.5	50.5	0.1	⊕	-6.6	-24.2	1.8	3.3	⊕	-14.3	-43.1	-91.8	24	
◊	4	P416WH	416 Rigby	400	25.92	Woodleigh Hydro	X	2400	2086	1797	1539	1319	1149	5115	3865	2867	2103	1545	1173	1.7	6.8	16.7	31.9	52.8	0.1	⊕	-6.5	-24.0	1.7	3.2	⊕	-14.2	-43.4	-92.9	24	
◊	4	P416RSA	416 Rem. Magnum	400	25.92	Swift A-Frame	X	2400	2175	1962	1763	1580	1413	5115	4202	3419	2760	2216	1774	1.2	4.7	11.1	20.9	34.1	⊕	-0.2	-6.2	-21.3	0.1	⊕	-5.8	-20.8	-47.1	-87.1	24	
◊	4	P416RT1	416 Rem. Magnum	400	25.92	Trophy Bonded Bear Claw	X	2400	2179	1969	1772	1591	1426	5115	4215	3443	2789	2248	1806	1.2	4.6	10.9	20.5	33.4	0.1	⊕	-5.8	-20.6	1.5	2.9	⊕	-11.9	-35.1	-71.8	24	
◊	4	P416RT2	416 Rem. Magnum	400	25.92	Trophy Bonded Sledgehammer Solid	X	2400	2100	1823	1574	1357	1185	5115	3918	2951	2200	1636	1246	1.6	6.5	15.8	29.9	49.7	0.1	⊕	-6.4	-23.5	1.7	3.2	⊕	-13.9	-41.9	-89.2	24	
◊	4	P416RWH	416 Rem. Magnum	400	25.92	Woodleigh Hydro	X	2400	2086	1797	1539	1319	1149	5115	3865	2867	2103	1545	1173	1.7	6.8	16.7	31.9	52.8	0.1	⊕	-6.5	-24.0	1.7	3.2	⊕	-14.2	-43.4	-92.9	24	
◊	4	P458T1	458 Win. Magnum	500	32.4	Trophy Bonded Bear Claw	X	2250	2025	1813	1619	1442	1290	4496	3641	2919	2327	1846	1478	1.3	5.3	12.9	23.8	39.2	0.2	⊕	-7.0	-24.8	1.9	3.5	⊕	-14.3	-41.6	-86.3	24	
◊	4	P458T2	458 Win. Magnum	500	32.4	Trophy Bonded Bear Claw	X	2090	1822	1580	1369	1198	1076	4849	3684	2773	2080	1594	1285	1.7	7.7	18.3	34.4	55.8	0.4	⊕	-9.2	-32.2	2.7	4.6	⊕	-18.5	-55.8	-117.6	24	
◊	4	P458T3	458 Win. Magnum	500	32.4	Trophy Bonded Sledgehammer Solid	X	1950	1729	1528	1352	1205	1096	4221	3320	2593	2028	1613	1333	1.8	7.2	16.9	31.2	50.2	0.6	⊕	-10.2	-35.3	3.1	5.1	⊕	-20.1	-59.2	-122.6	24	
◊	4	P458WH	458 Win. Magnum	500	32.4	Woodleigh Hydro	X	2050	1764	1510	1296	1133	1025	4665	3455	2530	1864	1425	1167	2.0	8.6	20.7	38.7	62.0	0.5	⊕	-9.8	-35.0	2.9	4.9	⊕	-20.4	-61.6	-129.9	24	
◊	4	P458SA	458 Win. Magnum	500	32.4	Swift A-Frame	X	2090	1878	1683	1503	1345	1212	4849	3916	3144	2508	2009	1631	1.2	5.9	13.7	25.7	41.8	0.0	-0.7	-9.9	-31.1	0.3	0.0	-8.5	-29.2	-65.5	-121.1	24	
◊	4	P458LT1	458 Lott	500	32.4	Trophy Bonded Bear Claw	X	2300	2016	1755	1520	1319	1161	5873	4514	3419	2566	1933	1496	1.6	6.7	16.1	30.5	50.3	0.2	⊕	-7.1	-25.6	2.0	3.6	⊕	-14.9	-45.2	-95.7	24	
◊	4	P458LT2	458 Lott	500	32.4	Trophy Bonded Sledgehammer Solid	X	2300	2055	1825	1616	1427	1267	5873	4689	3699	2900	2260	1782	1.4	5.6	13.6	25.2	41.7	0.2	⊕	-6.7	-24.1	1.8	3.3	⊕	-14.1	-41.2	-86.0	24	
◊	4	P458LWH	458 Lott	500	32.4	Woodleigh Hydro	X	2250	1947	1672	1430	1232	1090	5620	4209	3105	2269	1686	1320	1.7	7.6	18.2	34.7	56.9	0.2	⊕	-7.8	-28.0	2.2	3.9	⊕	-16.3	-50.0	-107.0	24	
◊	4	P470SA	470 Nitro Express	500	32.4	Swift A-Frame	X	2150	1936	1738	1555	1391	1251	5132	4163	3353	2685	2148	1736	1.2	5.5	13.2	24.4	39.9	0.0	-0.6	-9	-29.0	0.3	⊕	-7.9	-27.3	-61.0	-113.0	24	
◊	4	P470T1	470 Nitro Express	500	32.4																															



USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES (10 MPH CROSSWIND)					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT YARDS. SIGHTS 1/8 INCHES ABOVE BORE LINE. AVERAGE RANGE   LONG RANGE					TEST BARREL LENGTH INCHES							
			GRAINS	GRAMS		MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	50 YDS.	100 YDS.	200 YDS.		300 YDS.	400 YDS.	500 YDS.				
<b>FUSION</b>																																	
2	F223FS1	223 Rem.	62	4.02	Fusion	3000	2697	2413	2148	1898	1671	1239	1001	802	635	496	384	1.0	4.0	9.7	18.1	30.4	-0.2	⊕	-3.3	-12.6	0.6	1.6	⊕	-7.7	-22.8	-48.0	24
2	F22250FS1	22-250 Rem.	55	3.56	Fusion	3600	3108	2667	2267	1902	1580	1583	1179	869	627	442	305	1.1	4.8	11.6	22.3	38.3	-0.4	⊕	-2.1	-9.2	0.2	1.1	⊕	-6.0	-18.8	-41.8	24
2	F243FS1	243 Win.	95	6.16	Fusion	2980	2730	2493	2268	2056	1854	1873	1572	1311	1085	891	725	0.8	3.3	7.8	14.6	23.7	-0.2	⊕	-3.2	-11.9	0.6	1.6	⊕	-7.2	-21.2	-43.2	24
2	F2506FS1	25-06 Rem.	120	7.78	Fusion	2980	2778	2585	2399	2222	2052	2366	2056	1780	1534	1315	1122	0.6	2.6	6.0	11.3	18.3	-0.2	⊕	-3.0	-11.2	0.5	1.5	⊕	-6.7	-19.5	-39.3	24
2	F65CRDFS1	6.5 Creedmoor	140	9.07	Fusion	2725	2522	2327	2142	1964	1796	2308	1977	1683	1426	1199	1003	0.8	3.1	7.5	13.8	22.5	-0.1	⊕	-4	-14.4	0.9	2	⊕	-8.5	-24.4	-49.4	24
3	F6555FS1	6.5x55 Swedish	140	9.07	Fusion	2530	2336	2150	1973	1804	1648	1990	1696	1437	1210	1012	844	0.8	3.6	8.3	15.3	25.3	0.0	⊕	-4.9	-17.4	1.2	2.5	⊕	-9.9	-28.7	-58.7	24
2	F6555FSI2	6.5x55 Swedish	156	10.11	Fusion	2500	2326	2159	1999	1845	1702	2165	1874	1614	1384	1179	1003	0.7	3.3	7.7	13.7	22.7	0.0	⊕	-5.0	-17.5	1.2	2.5	⊕	-10.0	-28.3	-57.5	24
2	F260FS1	260 Rem.	120	7.78	Fusion	2950	2710	2483	2266	2061	1866	2319	1957	1642	1369	1132	928	0.8	3.3	7.6	14.2	23.0	-0.2	⊕	-3.2	-12.1	0.6	1.6	⊕	-7.3	-21.4	-43.4	24
2	F270FS1	270 Win.	130	8.42	Fusion	3050	2811	2584	2368	2163	1968	2685	2280	1927	1618	1350	1117	0.7	3.0	7.0	13.1	21.3	-0.2	⊕	-2.9	-11.0	0.5	1.5	⊕	-6.6	-19.6	-39.8	24
2	F270FS2	270 Win.	150	9.72	Fusion	2850	2655	2468	2289	2117	1953	2705	2347	2029	1745	1493	1270	0.7	2.8	6.5	12.0	19.3	-0.2	⊕	-3.4	-12.6	0.7	1.7	⊕	-7.4	-21.6	-43.3	24
2	F270WSMFS1	270 Win. Short Magnum	150	9.72	Fusion	3060	2867	2682	2504	2333	2169	3118	2737	2395	2088	1813	1567	0.5	2.4	5.5	10.0	16.3	-0.3	⊕	-2.8	-10.3	0.4	1.4	⊕	-6.2	-17.9	-36.1	24
2	F708FS2	7mm-08 Rem.	120	7.78	Fusion	3000	2719	2455	2206	1971	1753	2398	1970	1605	1296	1035	819	0.9	3.7	8.8	16.5	27.3	-0.2	⊕	-3.2	-12.2	0.6	1.6	⊕	-7.4	-22.0	-45.6	24
2	F708FS1	7mm-08 Rem.	140	9.07	Fusion	2850	2615	2393	2181	1980	1791	2525	2126	1779	1479	1219	997	0.9	3.4	8.0	14.9	24.3	-0.2	⊕	-3.6	-13.3	0.7	1.8	⊕	-7.9	-23.2	-47.2	24
2	F280FS1	280 Rem.	140	9.07	Fusion	2990	2794	2607	2427	2255	2089	2779	2427	2113	1831	1580	1357	0.6	2.5	5.8	10.7	17.5	-0.2	⊕	-3.0	-11.0	0.5	1.5	⊕	-6.5	-19.1	-38.5	24
3	F7RFS1	7mm Rem. Magnum	150	9.72	Fusion	3050	2861	2680	2505	2338	2177	3098	2726	2391	2091	1820	1578	0.5	2.3	5.4	9.8	16.0	-0.3	⊕	-2.8	-10.4	0.4	1.4	⊕	-6.2	-17.9	-36.1	24
3	F7RFS2	7mm Rem. Magnum	175	11.34	Fusion	2760	2592	2430	2274	2123	1978	2960	2610	2294	2008	1751	1521	0.7	2.5	5.8	10.8	17.4	-0.1	⊕	-3.6	-13.2	0.8	1.8	⊕	-7.8	-22.3	-44.5	24
3	F7WSMFS1	7mm Win. Short Magnum	150	9.72	Fusion	3100	2911	2730	2556	2388	2227	3200	2822	2481	2175	1899	1652	0.5	2.2	5.2	9.5	15.4	-0.3	⊕	-2.6	-9.9	0.4	1.3	⊕	-6.0	-17.2	-34.7	24
2	F76239FS1	7.62x39mm Soviet	123	7.97	Fusion	2350	2077	1823	1593	1389	1222	1508	1178	907	693	527	407	1.5	6.0	14.8	27.7	45.9	0.1	⊕	-6.5	-23.8	1.8	3.3	⊕	-14.0	-41.6	-87.7	24
2	F3030FS1	30-30 Win.	150	9.72	Fusion	2390	2086	1805	1553	1337	1167	1902	1449	1085	803	595	453	1.6	6.6	16.2	30.8	51.1	0.1	⊕	-6.5	-23.9	1.7	3.2	⊕	-14.2	-42.8	-91.5	24
2	F3030FS2	30-30 Win.	170	11.02	Fusion	2200	1950	1719	1510	1329	1182	1827	1435	1115	860	666	527	1.4	6.3	15.1	28.5	46.7	0.3	⊕	-7.7	-27.2	2.2	3.9	⊕	-15.6	-46.8	-97.8	24
2	F308FS1	308 Win.	150	9.72	Fusion	2820	2600	2391	2191	2001	1821	2648	2252	1903	1599	1333	1104	0.8	3.2	7.6	14.1	22.9	-0.2	⊕	-3.6	-13.4	0.7	1.8	⊕	-8.0	-23.1	-46.9	24
2	F308FS2	308 Win.	165	10.69	Fusion	2700	2501	2310	2128	1954	1789	2671	2291	1955	1660	1399	1173	0.7	3.1	7.5	13.7	22.3	-0.1	⊕	-4.1	-14.7	0.9	2.0	⊕	-8.6	-24.8	-50.1	24
2	F308FS3	308 Win.	180	11.66	Fusion	2600	2427	2260	2101	1947	1801	2702	2354	2042	1763	1515	1296	0.6	2.9	6.9	12.6	20.4	-0.1	⊕	-4.4	-15.7	1.0	2.2	⊕	-9.1	-25.8	-51.9	24
2	F3006FS1	30-06 Spring.	150	9.72	Fusion	2900	2674	2459	2254	2059	1874	2801	2382	2014	1693	1412	1169	0.8	3.1	7.4	13.7	22.2	-0.2	⊕	-3.4	-12.5	0.7	1.7	⊕	-7.5	-21.8	-44.1	24
2	F3006FS2	30-06 Spring.	165	10.69	Fusion	2790	2590	2399	2217	2042	1875	2852	2458	2109	1800	1527	1287	0.8	2.9	7.0	12.9	20.7	-0.1	⊕	-3.7	-13.4	0.8	1.8	⊕	-7.9	-22.9	-46.0	24
2	F3006FS3	30-06 Spring.	180	11.66	Fusion	2700	2521	2349	2185	2026	1874	2913	2540	2206	1907	1640	1403	0.7	2.7	6.6	12.1	19.4	-0.1	⊕	-4.0	-14.3	0.9	2.0	⊕	-8.4	-23.9	-47.8	24
2	F300WFS1	300 Win. Magnum	150	9.72	Fusion	3200	2958	2729	2512	2304	2107	3410	2915	2481	2101	1769	1479	0.6	2.7	6.4	11.8	19.4	-0.3	⊕	-2.5	-9.6	0.3	1.2	⊕	-5.9	-17.3	-35.4	24
2	F300WFS2	300 Win. Magnum	165	10.69	Fusion	3080	2865	2660	2464	2276	2097	3475	3006	2591	2223	1898	1610	0.6	2.6	6.1	11.2	18.3	-0.3	⊕	-2.8	-10.4	0.4	1.4	⊕	-6.3	-18.3	-37.1	24
2	F300WFS3	300 Win. Magnum	180	11.66	Fusion	2960	2766	2580	2401	2230	2065	3502	3057	2659	2304	1987	1704	0.6	2.6	5.9	10.9	17.7	-0.2	⊕	-3.1	-11.3	0.6	1.5	⊕	-6.7	-19.5	-39.4	24
2	F300WSMFS3	300 Win. Short Magnum	150	9.72	Fusion	3250	3005	2774	2555	2345	2146	3518	3008	2563	2173	1832	1534	0.6	2.7	6.3	11.6	18.9	-0.3	⊕	-2.4	-9.3	0.3	1.2	⊕	-5.7	-16.7	-34.2	24
2	F300WSMFS1	300 Win. Short Magnum	165	10.69	Fusion	3100	2885	2680	2484	2296	2116	3521	3048	2630	2260	1931	1641	0.6	2.6	6.0	11.1	18.1	-0.3	⊕	-2.7	-10.2	0.4	1.4	⊕	-6.2	-18.0	-36.5	24
2	F300WSMFS2	300 Win. Short Magnum	180	11.66	Fusion	2950	2756	2570	2391	2220	2055	3478	3035	2639	2285	1969	1688	0.6	2.6	5.9	11.0	17.9	-0.2	⊕	-3.1	-11.4	0.6	1.5	⊕	-6.8	-19.7	-39.7	24
2	F338FFS2	338 Federal	200	12.96	Fusion	2700	2487	2284	2090	1905	1733	3237	2746	2316	1940	1612	1334	0.8	3.4	8.1	14.8	24.4	-0.1	⊕	-4.1	-15.0	0.9	2.1	⊕	-8.8	-25.3	-51.9	24
2	F338FS1	338 Win. Magnum	225	14.58	Fusion	2850	2661	2479	2305	2138	1978	4058	3537	3071	2654	2283	1954	0.7	2.7	6.2	11.6	18.7	-0.2	⊕	-3.4	-12.5	0.7	1.7	⊕	-7.3	-21.3	-42.8	24
2	F35FS1	35 Whelen	200	12.96	Fusion	2800	2537	2289	2055	1835	1634	3481	2858	2327	1876	1495	1185	1.0	4.0	9.5	17.7	29.6	-0.1	⊕	-3.9	-14.5	0.8	2.0	⊕	-8.7	-25.4	-53.0	24
2	F4570FS1	45-70 Government	300	19.44	Fusion	1850	1612	1401	1227	1099	1011	2280	1731	1307	1003	804																	



ATT	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES (10 MPH CROSSWIND)					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE.					TEST BARREL LENGTH INCHES							
				GRAINS	GRAMS		MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.		400 YDS.	500 YDS.					
				FEDERAL POWER-SHOK®																														
1		222A	222 Rem.	50	3.24	SP	3140	2626	2166	1755	1408	1152	1095	765	521	342	220	147	1.6	6.9	17.2	34.0	58.9	-0.2	⊕	-3.6	-14.8	0.7	1.8	⊕	-9.3	-30.4	-70.1	24
1		223A	223 Rem.	55	3.56	SP	3240	2800	2400	2035	1705	1420	1282	957	703	505	355	246	1.2	5.3	12.9	25.0	42.6	-0.3	⊕	-3.0	-12.0	0.5	1.5	⊕	-7.6	-23.8	-52.3	24
2		223L	223 Rem.	64	4.15	SP	3050	2682	2342	2027	1740	1485	1322	1022	779	584	430	313	1.2	4.9	11.8	22.6	38.2	-0.2	⊕	-3.3	-13.1	0.6	1.7	⊕	-8.1	-24.7	-53.2	24
1		22250A	22-250 Rem.	55	3.56	SP	3650	3136	2679	2264	1888	1558	1627	1201	876	626	435	296	1.2	4.9	11.9	22.9	39.4	-0.4	⊕	-2.1	-9.0	0.1	1.0	⊕	-5.9	-18.7	-41.8	24
2		243AS	243 Win.	80	5.18	SP	3330	3051	2790	2543	2309	2088	1970	1654	1382	1148	947	774	0.7	3.0	6.9	12.8	21.1	-0.3	⊕	-2.2	-9.0	0.2	1.1	⊕	-5.6	-16.6	-34.2	24
2		24385LFA	243 Win.	85	5.51	Copper HP	3200	2783	2403	2054	1737	1459	1933	1462	1090	796	569	402	1.2	5.1	12.4	23.9	40.5	-0.3	⊕	-3.0	-12.1	0.5	1.5	⊕	-7.6	-23.6	-51.4	24
2		243B	243 Win.	100	6.48	SP	2960	2697	2448	2213	1991	1783	1945	1615	1331	1087	880	706	0.9	3.6	8.4	15.8	25.9	-0.2	⊕	-3.3	-12.4	0.6	1.6	⊕	-7.5	-22.1	-45.4	24
2		6B	6mm Rem.	100	6.48	SP	3100	2827	2571	2329	2100	1883	2134	1775	1468	1204	979	787	0.8	3.4	7.9	14.8	24.1	-0.3	⊕	-2.9	-11.0	0.5	1.4	⊕	-6.7	-19.9	-40.7	24
2		2506BS	25-06 Rem.	117	7.58	SP	3030	2767	2519	2283	2061	1851	2385	1989	1648	1354	1104	890	0.8	3.4	8	14.9	24.4	-0.2	⊕	-3.1	-11.6	0.5	1.5	⊕	-7.0	-20.8	-42.5	24
2		6555B	6.5x55 Swedish	140	9.07	SP	2650	2450	2258	2075	1900	1736	2183	1865	1585	1338	1122	937	0.7	3.3	7.8	14.3	23.6	-0.1	⊕	-4.3	-15.5	1.0	2.2	⊕	-9.0	-25.9	-52.8	24
2		270A	270 Win.	130	8.42	SP	3060	2803	2560	2329	2111	1904	2703	2267	1891	1566	1286	1046	0.8	3.2	7.6	14.2	23.1	-0.2	⊕	-3.0	-11.2	0.5	1.5	⊕	-6.7	-20.0	-40.9	24
2		270130LFA	270 Win.	130	8.42	Copper HP	3060	2729	2422	2135	1867	1625	2703	2150	1693	1315	1006	763	1.0	4.3	10.3	19.3	32.6	-0.2	⊕	-3.2	-12.4	0.6	1.6	⊕	-7.6	-22.7	-48.4	24
2		270B	270 Win.	150	9.72	SPRN	2830	2486	2166	1871	1606	1374	2667	2057	1563	1166	859	629	1.3	5.4	12.8	24.9	41.7	-0.1	⊕	-4.2	-15.7	0.9	2.1	⊕	-9.4	-29.2	-62.6	24
2		270WSME	270 Win. Short Magnum	130	8.42	SP	3250	2978	2722	2480	2251	2034	3049	2559	2138	1775	1462	1194	0.7	3.0	7.1	13.2	21.7	-0.3	⊕	-2.4	-9.6	0.3	1.2	⊕	-5.9	-17.5	-36.0	24
2		7B	7mm Mauser	140	9.07	SP	2660	2454	2256	2069	1889	1722	2199	1871	1583	1330	1109	922	0.8	3.4	8.0	14.7	24.3	-0.1	⊕	-4.3	-15.5	1.0	2.1	⊕	-9.0	-25.9	-53.1	24
2		7A	7mm Mauser	175	11.34	SPRN	2390	2090	1812	1564	1348	1177	2219	1697	1276	950	706	538	1.6	6.5	16.0	30.2	50.2	0.1	⊕	-6.5	-23.7	1.7	3.2	⊕	-14.1	-42.4	-90.4	24
2		708CS	7mm-08 Rem.	150	9.72	SP	2650	2438	2235	2043	1859	1689	2339	1979	1664	1390	1151	950	0.8	3.5	8.3	15.3	25.4	-0.1	⊕	-4.4	-15.7	1.0	2.2	⊕	-9.2	-26.5	-54.4	24
2		280B	280 Rem.	150	9.72	SP	2890	2667	2455	2253	2060	1877	2782	2369	2008	1690	1414	1173	0.8	3.1	7.3	13.6	22.0	-0.2	⊕	-3.4	-12.6	0.7	1.7	⊕	-7.5	-21.9	-44.2	24
2		7RA	7mm Rem. Magnum	150	9.72	SP	3110	2841	2587	2347	2120	1905	3221	2687	2229	1834	1497	1209	0.8	3.3	7.7	14.5	23.6	-0.3	⊕	-2.8	-10.8	0.4	1.4	⊕	-6.6	-19.6	-40.1	24
3		7RB	7mm Rem. Magnum	175	11.34	SP	2860	2646	2441	2246	2060	1882	3178	2720	2316	1961	1649	1377	0.8	3.0	7.2	13.3	21.4	-0.2	⊕	-3.5	-12.8	0.7	1.7	⊕	-7.6	-22.1	-44.6	24
2		7WSME	7mm Win. Short Magnum	150	9.72	SP	3100	2831	2578	2338	2112	1898	3200	2669	2213	1821	1486	1199	0.8	3.3	7.7	14.5	23.7	-0.3	⊕	-2.9	-10.9	0.5	1.4	⊕	-6.6	-19.7	-40.4	24
1		30CA	30 Carbine	110	7.13	SPRN	1990	1564	1231	1031	919	839	967	597	370	260	206	172	3.5	15.1	35.8	63.7	97.4	0.7	⊕	-13.0	-49.1	3.9	6.5	⊕	-29.7	-90.9	-190.2	18
2		300BLK120LFA	300 Blackout	120	7.78	Copper HP	2100	1799	1533	1307	1136	1024	1175	863	626	455	344	279	1.9	8.7	20.9	39.2	63.2	0.4	⊕	-9.4	-33.7	2.7	4.7	⊕	-14.1	-42.4	-127.1	16
2		76239B	7.62x39mm Soviet	123	7.97	SP	2350	2055	1783	1539	1329	1164	1508	1153	868	646	482	370	1.6	6.7	16.2	30.7	50.8	0.2	⊕	-6.7	-24.6	1.8	3.4	⊕	-14.5	-43.9	-93.3	20
1		3030C	30-30 Win.	125	8.1	HP	2570	2083	1656	1309	1079	952	1833	1204	761	476	323	252	2.3	10.2	25.6	49.9	81.6	0.1	⊕	-6.7	-26.4	1.7	3.3	⊕	-16.4	-53.7	-120.6	24
2		3030A	30-30 Win.	150	9.72	SPFN	2390	2019	1686	1399	1179	1037	1902	1358	947	652	463	358	2.0	8.6	20.8	40.0	65.9	0.1	⊕	-7.2	-26.7	1.9	3.6	⊕	-15.9	-50.1	-109.8	24
2		3030B	30-30 Win.	170	11.02	SPRN	2200	1894	1619	1380	1191	1060	1827	1354	990	719	535	424	1.8	8.1	19.4	36.7	59.9	0.3	⊕	-8.4	-30	2.4	4.2	⊕	-17.4	-53.5	-114.4	24
2		300A	300 Savage	150	9.72	SP	2630	2353	2094	1850	1629	1430	2304	1844	1460	1140	884	681	1.1	4.9	11.5	22.1	36.4	-0.1	⊕	-4.8	-17.5	1.2	2.4	⊕	-10.2	-31.1	-64.8	24
2		300B	300 Savage	180	11.66	SP	2350	2137	1934	1745	1571	1412	2207	1825	1495	1217	986	797	1.2	4.5	10.9	20.5	33.3	0.1	⊕	-6.1	-21.6	1.6	3.0	⊕	-12.5	-36.5	-74.4	24
2		308A	308 Win.	150	9.72	SP	2820	2532	2261	2007	1771	1557	2648	2134	1702	1341	1044	807	1.1	4.4	10.4	19.7	32.9	-0.1	⊕	-3.9	-14.7	0.8	2.0	⊕	-8.8	-26.3	-55.2	24
2		308150LFA	308 Win.	150	9.72	Copper HP	2820	2497	2195	1915	1661	1434	2648	2076	1605	1221	918	685	1.2	5.0	12.0	23.0	38.4	-0.1	⊕	-4.1	-15.4	0.9	2.1	⊕	-9.2	-28.3	-59.9	24
2		308B	308 Win.	180	11.66	SP	2570	2345	2131	1929	1740	1565	2640	2197	1816	1486	1209	979	0.9	4.1	9.4	17.8	29.4	0.0	⊕	-4.9	-17.3	1.2	2.4	⊕	-10.0	-29.5	-60.7	24
1		3006CS	30-06 Spring.	125	8.1	SP	3140	2779	2446	2136	1850	1593	2736	2143	1660	1267	949	704	1.0	4.5	10.8	20.4	34.6	-0.3	⊕	-3.0	-11.9	0.5	1.5	⊕	-7.4	-22.3	-48.0	24
2		3006A	30-06 Spring.	150	9.72	SP	2910	2616	2340	2081	1839	1619	2820	2279	1823	1442	1126	873	1.0	4.2	10.0	18.7	31.4	-0.2	⊕	-3.6	-13.6	0.7	1.8	⊕	-8.2	-24.4	-51.3	24
2		3006150LFA	30-06 Spring.	150	9.72	Copper HP	2910	2580	2273	1988	1725	1491	2820	2217	1721	1316	991	740	1.2	4.8	11.5	21.9	36.7	-0.2	⊕	-3.7	-14.3	0.8	1.9	⊕	-8.7	-26.2	-55.7	24
2		3006B	30-06 Spring.	180	11.66	SP	2700																											



ATT	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	MUZZLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					MUZZLE	ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES TO MPH CROSSWIND					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE   LONG RANGE										TEST BARREL LENGTH INCHES
				GRAINS	GRAMS			100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.		100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	50 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.					
<b>FEDERAL® NON-TYPICAL</b>																																		
2		243DT100	243 Win.	100	6.48	SP	2960	2697	2448	2213	1991	1783	1945	1615	1331	1087	880	706	0.9	3.6	8.4	15.8	25.9	-0.2	⊕	-3.3	-12.4	0.6	1.6	⊕	-7.5	-22.1	-45.4	24
2		65CDT1	6.5 Creedmoor	140	9.07	SP	2725	2522	2327	2142	1964	1796	2308	1977	1683	1426	1199	1003	0.8	3.1	7.5	13.8	22.5	-0.1	⊕	-4	-14.4	0.9	2	⊕	-8.5	-24.4	-49.4	24
2		270DT130	270 Win.	130	8.42	SP	3060	2803	2560	2329	2111	1904	2703	2267	1891	1566	1286	1046	0.8	3.2	7.6	14.2	23.1	-0.2	⊕	-3.0	-11.2	0.5	1.5	⊕	-6.7	-20.0	-40.9	24
2		270DT150	270 Win.	150	9.72	SPRN	2830	2486	2166	1871	1606	1374	2667	2057	1563	1166	859	629	1.3	5.4	12.8	24.9	41.7	-0.1	⊕	-4.2	-15.7	0.9	2.1	⊕	-9.4	-29.2	-62.6	24
2		3030DT150	30-30 Win.	150	9.72	SPFN	2390	2019	1686	1399	1179	1037	1902	1358	947	652	463	358	2.0	8.6	20.8	40.0	65.9	0.1	⊕	-7.2	-26.7	1.9	3.6	⊕	-15.9	-50.1	-109.8	24
2		3030DT170	30-30 Win.	170	11.02	SPRN	2200	1894	1619	1380	1191	1060	1827	1354	990	719	535	424	1.8	8.1	19.4	36.7	59.9	0.3	⊕	-8.4	-30	2.4	4.2	⊕	-17.4	-53.5	-114.4	24
2		308DT150	308 Win.	150	9.72	SP	2820	2532	2261	2007	1771	1557	2648	2134	1702	1341	1044	807	1.1	4.4	10.4	19.7	32.9	-0.1	⊕	-3.9	-14.7	0.8	2.0	⊕	-8.8	-26.3	-55.2	24
2		308DT180	308 Win.	180	11.66	SP	2570	2345	2131	1929	1740	1565	2640	2197	1816	1486	1209	979	0.9	4.1	9.4	17.8	29.4	0.0	⊕	-4.9	-17.3	1.2	2.4	⊕	-10.0	-29.5	-60.7	24
2		3006DT150	30-06 Spring.	150	9.72	SP	2910	2616	2340	2081	1839	1619	2820	2279	1823	1442	1126	873	1.0	4.2	10.0	18.7	31.4	-0.2	⊕	-3.6	-13.6	0.7	1.8	⊕	-8.2	-24.4	-51.3	24
2		3006DT180	30-06 Spring.	180	11.66	SP	2700	2470	2252	2045	1848	1667	2913	2439	2026	1671	1365	1111	0.9	3.7	8.8	16.2	27.0	-0.1	⊕	-4.2	-15.3	1.0	2.1	⊕	-9.0	-26.2	-54.0	24
2		7RDT150	7mm Rem. Magnum	150	9.72	SP	3110	2841	2587	2347	2120	1905	3221	2687	2229	1834	1497	1209	0.8	3.3	7.7	14.5	23.6	-0.3	⊕	-2.8	-10.8	0.4	1.4	⊕	-6.6	-19.6	-40.1	24
2		300WDT150	300 Win. Magnum	150	9.72	SP	3150	2898	2661	2435	2221	2017	3305	2798	2358	1975	1643	1355	0.7	3.0	6.9	12.9	21.1	-0.3	⊕	-2.7	-10.2	0.4	1.3	⊕	-6.2	-18.3	-37.5	24
3		300WDT180	300 Win. Magnum	180	11.66	SP	2960	2746	2542	2346	2160	1982	3502	3013	2582	2200	1864	1570	0.7	2.9	6.6	12.3	20.0	-0.2	⊕	-3.1	-11.6	0.6	1.6	⊕	-6.9	-20.3	-41.0	24
<b>NEW</b>	2	450BMDT1	450 Bushmaster	300	19.44	SP	1900	1602	1346	1153	1028	945	2405	1708	1208	885	703	595	2.7	10.8	25.6	46.5	72.4	0.7	⊕	-12.2	-43.7	3.7	6.1	⊕	-25.4	-77.1	-160.6	24
<b>FEDERAL VARMINT &amp; PREDATOR</b>																																		
1		AE17H20TVP	17 Hornet	20	1.3	Tipped Varmint	3610	3042	2541	2092	1694	1361	579	411	287	194	127	82	1.3	5.7	14.0	27.5	47.7	-0.4	⊕	-2.3	-10.1	0.2	1.1	⊕	-6.6	-21.4	-49.1	24
1		AE22H35TVP	22 Hornet	35	2.27	Tipped Varmint	3000	2188	1526	1094	908	795	699	372	181	93	64	49	3.0	14.4	38.3	74.2	118.8	-0.1	⊕	-6.1	-28.3	1.4	3.1	⊕	-19.1	-66.9	-152.6	24
1		V204VM32	204 Ruger	32	2.07	Hornady V-MAX	4100	3536	3040	2596	2193	1827	1194	888	657	479	342	237	1	4.2	10.2	19.4	32.8	-0.4	⊕	-1.3	-6.4	-0.1	0.6	⊕	-4.4	-14.1	-31.1	24
1		V223VM40	223 Rem. (5.56x45mm)	40	2.59	Hornady V-MAX	3800	3249	2782	2324	1927	1579	1282	937	677	479	330	221	1.1	4.9	11.8	22.8	39.4	-0.4	⊕	-1.8	-8.2	0.1	0.9	⊕	-5.5	-17.6	-39.5	24
1.5		AE22350VP	223 Rem.	50	3.24	JHP	3325	2839	2402	2006	1653	1355	1227	895	640	447	303	204	1.3	5.6	13.8	27.1	46.5	-0.3	⊕	-2.8	-11.8	0.4	1.4	⊕	-7.5	-24.0	-53.7	24
1		V223VM53	223 Rem. (5.56x45mm)	53	3.43	Hornady V-MAX	3400	3046	2720	2416	2132	1868	1360	1092	871	687	535	410	0.9	3.7	8.7	16.5	27.3	-0.3	⊕	-2.3	-9.2	0.2	1.1	⊕	-5.8	-17.7	-37.1	24
1		V224VLM60	224 Valkyrie	60	3.89	Hornady V-MAX	3300	2923	2577	2255	1958	1687	1451	1138	884	678	511	379	1	4.3	10.2	19.3	32.4	-0.3	⊕	-2.6	-10.4	0.3	1.3	⊕	-6.5	-20	-42.8	24
1		V22250VM40	22-250 Rem.	40	2.59	Hornady V-MAX	4200	3597	3070	2602	2179	1798	1567	1149	837	601	422	287	1	4.4	10.5	20.1	34.1	-0.5	⊕	-1.2	-6.1	-0.2	0.6	⊕	-4.3	-13.9	-30.9	24
1.5		AE22250VP	22-250 Rem.	50	3.24	JHP	3850	3303	2819	2384	1990	1639	1645	1211	882	631	439	298	1.1	4.7	11.3	21.9	37.5	-0.4	⊕	-1.7	-7.8	0.0	0.9	⊕	-5.3	-16.8	-37.5	24
1		AE24375VP	243 Win.	75	4.86	JHP	3375	2943	2551	2191	1861	1569	1897	1443	1084	800	577	410	1.1	4.8	11.5	21.9	37.3	-0.3	⊕	-2.5	-10.5	0.3	1.3	⊕	-6.7	-20.6	-45.1	24
1		AE65GDL90VP	6.5mm Grendel	90	5.83	Speer TNT	3000	2641	2309	2002	1721	1472	1798	1394	1065	801	592	433	1.2	4.9	11.9	22.8	38.3	-0.2	⊕	-3.5	-13.6	0.7	1.7	⊕	-8.3	-25.5	-54.6	24
1		V65CRDVM95	6.5 Creedmoor	95	6.16	Hornady V-MAX	3300	3023	2763	2518	2285	2065	2297	1928	1610	1337	1101	900	0.7	3	7	13	21.4	-0.3	⊕	-2.3	-9.2	0.3	1.2	⊕	-5.7	-16.9	-34.9	24
1		AE6890VP	6.8 SPC	90	5.83	Jacketed Hollow Point	2990	2651	2335	2043	1772	1530	1786	1404	1090	834	628	468	1.1	4.6	11.2	21.2	35.7	-0.2	⊕	-3.5	-13.4	0.7	1.7	⊕	-8.2	-24.7	-52.6	24
1		V308VM110	308 Win. (7.62x51mm)	110	7.13	Hornady V-MAX	3300	2954	2635	2336	2058	1799	2660	2132	1695	1333	1034	791	0.9	3.9	9.1	17.2	28.6	-0.3	⊕	-2.5	-10	0.3	1.3	⊕	-6.2	-19	-39.9	24
1		AE308130VP	308 Win.	130	8.42	JHP	3050	2691	2359	2052	1769	1516	2685	2090	1606	1215	903	664	1.1	4.7	11.5	21.8	36.8	-0.2	⊕	-3.3	-12.9	0.6	1.7	⊕	-8.0	-24.3	-52.0	24

AMERICAN EAGLE® RIFLE

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	MUZZLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					MUZZLE	ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES TO MPH CROSSWIND					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE   LONG RANGE										TEST BARREL LENGTH INCHES	
			GRAINS	GRAMS			100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.		100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	50 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.						
<b>AMERICAN EAGLE</b>																																		
	5	AE5728A	5.7x28	40	2.59	TMJ	2250	1606	1151	942	825	735	450	229	118	79	60	48	4.4	20.2	48.0	84.7	129.1	0.5	⊕	-12.6	-51.3	3.6	6.3	⊕	-32.4	-101.1	-216.1	24
<b>NEW</b>	1.5	AE223G	223 Rem.	50	3.24	Speer TNT JHP	3325	2839	2402	2006	1653	1355	1227	895	640	447	303	204	1.3	5.6	13.8	27.1	46.5	-0.3	⊕	-2.8	-11.8	0.4	1.4	⊕	-7.5	-24.0	-53.7	24
	5	AE223	223 Rem.	55	3.56	FMJ BT	3240	2874	2536	2222	1931	1667	1282	1008	785	603	455	339	1.0	4.3	10.2	19.4	32.7	-0.3	⊕	-2.7	-10.9	0.4	1.4	⊕	-6.8	-20.6	-44.2	24
	5	AE223N	223 Rem.	62	4.02	FMJ BT	3020	2713	2426	2156	1904	1674	1255	1013	810	640	499	386	1.0	4.0	9.7	18.1	30.4	-0.2	⊕	-3.2	-12.4	0.6	1.6	⊕	-7.			



## FEDERAL PREMIUM® HANDGUN

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					TRAJECTORY SIGHTS .9 INCHES ABOVE BORE LINE				TEST BARREL LENGTH INCHES
			GRAINS	GRAMS		MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	25 YDS.	50 YDS.	75 YDS.	100 YDS.	
<b>FEDERAL PREMIUM VITAL-SHOK®</b>																				
2	P357SA	357 Magnum	180	11.66	Swift A-Frame	1130	1086	1049	1016	988	510	471	439	413	390	⊕	-0.9	-3.9	-8.9	6-V
2	P41SA	41 Rem. Magnum	210	13.61	Swift A-Frame	1360	1289	1224	1167	1118	862	775	698	635	582	⊕	-0.4	-2.3	-5.7	6-V
2	P44SA	44 Rem. Magnum	280	18.14	Swift A-Frame	1170	1107	1056	1013	977	851	762	693	638	594	⊕	-0.9	-3.7	-8.6	6-V
2	P454SA	454 Casull	300	19.44	Swift A-Frame	1520	1410	1311	1223	1149	1539	1324	1145	996	879	⊕	-0.2	-1.7	-4.6	5.7-V
2	P460SA	460 S&W	300	19.44	Swift A-Frame	1750	1625	1506	1397	1300	2040	1758	1510	1300	1125	⊕	0.1	-0.8	-2.8	8.4-V
3	P500SA	500 S&W	325	21.06	Swift A-Frame	1800	1677	1559	1449	1350	2338	2028	1754	1515	1315	⊕	0.1	-0.6	-2.4	8.4-V
3	P10T1	10mm Auto	180	11.66	Trophy Bonded JSP	1275	1192	1123	1067	1021	650	568	504	455	417	⊕	-0.6	-3.0	-7.2	5
2	P357XB1	357 Magnum	140	9.07	Barnes Expander	1400	1326	1257	1196	1143	609	546	491	445	406	⊕	-0.3	-2.0	-5.3	6-V
2	P41XB1	41 Rem. Magnum	180	11.66	Barnes Expander	1340	1262	1193	1134	1084	718	636	569	514	470	⊕	-0.5	-2.5	-6.1	6-V
2	P44XB1	44 Rem. Magnum	225	14.58	Barnes Expander	1280	1209	1147	1096	1052	818	730	658	600	553	⊕	-0.6	-2.8	-6.9	6-V
2	P454XB1	454 Casull	250	16.2	Barnes Expander	1530	1423	1326	1239	1165	1299	1123	976	852	753	⊕	-0.2	-1.6	-4.4	5.7-V
2	P460XB1	460 S&W	275	17.82	Barnes Expander	1670	1595	1522	1453	1388	1703	1553	1415	1289	1177	⊕	0.1	-0.8	-2.7	8.4-V
2	P500XB1	500 S&W	275	17.82	Barnes Expander	1660	1544	1435	1337	1249	1682	1455	1257	1091	952	⊕	0.0	-1.1	-3.4	8.4-V
<b>FEDERAL PREMIUM PERSONAL DEFENSE HYDRA-SHOK®</b>																				
6	P32HS1	32 Auto	65	4.21	Hydra-Shok	925	892	862	834	808	123	115	107	100	94	⊕	-1.8	-6.6	-14.5	4
6	P9HS1	9mm Luger	124	8.04	Hydra-Shok	1120	1070	1028	993	961	345	315	291	271	255	⊕	-1.0	-4.0	-9.3	4
6	P9HS2	9mm Luger	147	9.53	Hydra-Shok	1000	976	953	933	914	326	311	297	284	273	⊕	-1.4	-5.2	-11.5	4
6	P357S1	357 Sig	125	8.1	Hydra-Shok	1350	1266	1192	1130	1078	506	445	395	354	323	⊕	-0.5	-2.4	-6.1	4
6	P38HS1	38 Special +P	129	8.36	Hydra-Shok	950	926	904	884	865	258	246	234	224	214	⊕	-1.6	-5.9	-13	4-V
6	P357HS1	357 Magnum	158	10.24	Hydra-Shok	1240	1187	1139	1098	1063	539	494	455	423	396	⊕	-0.6	-3.0	-7.1	4-V
6	P40HS2	40 S&W	155	10.04	Hydra-Shok	1140	1079	1030	989	954	447	401	365	337	313	⊕	-1.0	-4.0	-9.2	4
6	P40HS3	40 S&W	165	10.69	Hydra-Shok	980	950	924	899	876	352	331	312	296	281	⊕	-1.5	-5.6	-12.3	4
6	P40HS1	40 S&W	180	11.66	Hydra-Shok	1000	972	946	923	901	400	377	358	340	324	⊕	-1.4	-5.3	-11.6	4
6	P10HS1	10mm Auto	180	11.66	Hydra-Shok	1030	998	970	945	921	424	398	376	357	339	⊕	-1.3	-4.9	-10.9	5
6	P44HS1	44 Rem. Magnum	240	15.55	Hydra-Shok	1210	1152	1102	1060	1024	780	707	647	599	559	⊕	-0.7	-3.3	-7.7	4-V
6	P45HS1	45 Auto	230	14.9	Hydra-Shok	900	882	865	848	832	414	397	382	367	354	⊕	-1.9	-6.7	-14.6	5
<b>FEDERAL PREMIUM PERSONAL DEFENSE HYDRA-SHOK DEEP</b>																				
<b>NEW</b> 6	P9HSD1	9mm Luger	135	8.75	Hydra-Shok Deep	1060	1026	996	970	946	337	316	298	282	268	⊕	-1.2	-4.5	-10.2	4
6	P40HSD1	40 S&W	165	10.69	Hydra-Shok Deep	100	1011	978	949	922	404	375	350	330	311	0	-1.2	-4.7	-10.6	4
<b>NEW</b> 6	P45HSD1	45 Auto	210	13.61	Hydra-Shok Deep	980	952	927	903	882	448	423	400	381	363	⊕	-1.5	-5.5	-12.2	5
<b>FEDERAL PREMIUM PERSONAL DEFENSE HYDRA-SHOK LOW-RECOIL</b>																				
6	PD327HS1 H	327 Federal Magnum	85	5.51	Hydra-Shok	1400	1306	1221	1150	1091	370	322	281	250	225	⊕	-0.4	-2.2	-5.7	4-V
6	PD380HS1 H	380 Auto	90	5.83	Hydra-Shok	1000	953	914	879	847	200	182	167	154	143	⊕	-1.5	-5.6	-12.5	3.75
6	PD9HS5 H	9mm Luger	135	8.75	Hydra-Shok	1060	1026	996	970	946	337	316	298	282	268	⊕	-1.2	-4.5	-10.2	4
6	PD38HS3 H	38 Special	110	7.13	Hydra-Shok	980	943	911	882	855	235	217	203	190	179	⊕	-1.5	-5.7	-12.6	4-V
6	PD357HS2 H	357 Magnum	130	8.42	Hydra-Shok	1410	1331	1258	1193	1138	574	511	457	411	373	⊕	-0.3	-2.0	-5.2	4-V
6	PD40HS4 H	40 S&W	135	8.75	Hydra-Shok	1200	1116	1051	999	957	432	373	331	299	274	⊕	-0.8	-3.7	-8.6	4
6	PD45HS3 H	45 Auto	165	10.69	Hydra-Shok	1060	1014	976	942	912	412	377	349	325	305	⊕	-1.2	-4.7	-10.6	5
<b>FEDERAL PREMIUM PERSONAL DEFENSE HST®</b>																				
6	P9HST1S	9mm Luger	124	8.04	HST	1150	1095	1049	1010	977	364	330	303	281	263	⊕	-0.9	-3.8	-8.8	4
6	P9HST2S	9mm Luger	147	9.53	HST	1000	976	953	933	914	326	311	297	284	273	⊕	-1.4	-5.2	-11.5	4
6	P40HST1S	40 S&W	180	11.66	HST	1010	980	954	930	908	408	384	364	346	329	⊕	-1.4	-5.1	-11.4	4
<b>NEW</b> 6	P10HST1S	10mm Auto	200	12.96	HST	1130	1051	991	943	902	567	490	436	395	361	⊕	-1.1	-4.3	-10	5
6	P45HST2S	45 Auto	230	14.9	HST	890	872	856	840	824	404	389	374	360	347	⊕	-2.0	-6.9	-15.0	5
<b>FEDERAL PREMIUM PERSONAL DEFENSE HST MICRO</b>																				
6	P380HST1S	380 Auto	99	6.42	HST	1030	986	948	915	885	233	213	197	184	172	⊕	-1.3	-5.1	-11.4	3.75
6	P38HST1S	38 Special +P	130	8.42	HST	890	866	844	823	803	229	217	206	196	186	⊕	-2.0	-7.1	-15.3	4-V
6	P9HST5S	9mm Luger	150	9.72	HST	900	883	866	851	836	270	260	250	241	233	⊕	-1.9	-6.7	-14.5	4
<b>FEDERAL PREMIUM GOLD MEDAL®</b>																				
7	GM38A	38 Special	148	9.59	LW Match	690	650	610	570	540	155	140	120	110	95	⊕	-4.3	-14.4	-31.2	4-V
7	GM45B	45 Auto	185	11.99	FMJ-SWC Match	770	740	700	670	640	245	220	205	185	170	⊕	-3.1	-10.6	-23.0	5
7	GM45A	45 Auto	230	14.90	FMJ Match	860	840	830	810	800	380	365	350	340	325	⊕	-2.2	-7.5	-16.1	5

## FUSION® HANDGUN

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					TRAJECTORY SIGHTS .9 INCHES ABOVE BORE LINE				TEST BARREL LENGTH INCHES
			GRAINS	GRAMS		MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	25 YDS.	50 YDS.	75 YDS.	100 YDS.	
<b>FUSION</b>																				
2	F357FS1	357 Magnum	158	10.24	Fusion	1240	1190	1140	1100	1060	540	495	455	425	395	⊕	-0.6	-3.0	-7.1	4-V
2	F44FS1	44 Rem. Magnum	240	15.55	Fusion	1290	1220	1160	1110	1070	885	795	720	655	605	⊕	-0.6	-2.7	-6.7	4-V
2	F454FS1	454 Casull	260	16.85	Fusion	1350	1270	1190	1130	1080	1050	925	820	735	670	⊕	-0.5	-2.4	-6.1	5.7-V
2	F460FS1	460 S&W	260	16.85	Fusion	1600	1500	1400	1310	1230	1480	1290	1125	990	870	⊕	-0.1	-1.3	-3.7	8.4-V
2	F500FS2	500 S&W	325	21.06	Fusion	1450	1360	1270	1200	1130	1515	1330	1170	1035	930	⊕	-0.3	-1.9	-5.0	8.4-V
2	F50AEFS1	50 Action Express	300	19.44	Fusion	1550	1451	1361	1278	1205	1600	1402	1233	1088	967	⊕	-0.2	-1.7	-4.5	6

## FEDERAL® HANDGUN

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					TRAJECTORY SIGHTS .9 INCHES ABOVE BORE LINE				TEST BARREL LENGTH INCHES
			GRAINS	GRAMS		MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	25 YDS.	50 YDS.	75 YDS.	100 YDS.	
<b>FEDERAL POWER-SHOK® HANDGUN</b>																				
2	C357G	357 Magnum	180	11.66	JHP	1080	1050	1020	1000	970	465	440	415	395	380	⊕	-1.1	-4.2	-9.6	4-V
2	C41A	41 Rem. Magnum	210	13.61	JHP	1230	1170	1120	1080	1040	705	640								



## AMERICAN EAGLE® HANDGUN

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)				ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)				TRAJECTORY 9 INCHES ABOVE BORE LINE				TEST BARREL LENGTH INCHES		
			GRAINS	GRAMS		MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	25 YDS.	50 YDS.		75 YDS.	100 YDS.
<b>AMERICAN EAGLE HANDGUN</b>																				
5	AE5728A	5.7x28	40	2.59	TMJ	1655	1514	1387	1275	1179	243	204	171	144	124	⊕	0.0	-1.2	-3.8	4.8
5	AE25AP	25 Auto	50	3.24	FMJ	760	738	717	697	677	64	60	57	54	51	⊕	-3.1	-10.4	-22.1	2
5	AE32AP	32 Auto	71	4.6	FMJ	900	872	846	821	798	128	120	113	106	100	⊕	-2.0	-7.0	-15.2	4
5	AE327A	327 Federal Magnum	85	5.51	JSP	1400	1306	1221	1150	1091	370	322	281	250	225	⊕	-0.4	-2.2	-5.7	4-V
6	AE327	327 Federal Magnum	100	6.48	JSP	1500	1408	1324	1248	1181	500	440	389	346	310	⊕	-0.2	-1.6	-4.5	4-V
5	AE380AP	380 Auto	95	6.16	FMJ	980	937	899	865	835	203	185	170	158	147	⊕	-1.6	-5.8	-13.0	3.75
5	AE9DP	9mm Luger	115	7.45	FMJ	1180	1106	1048	1001	961	356	312	280	256	236	⊕	-0.9	-3.7	-8.7	4
5	AE9AP	9mm Luger	124	8.04	FMJ	1150	1095	1049	1010	977	364	330	303	281	263	⊕	-0.9	-3.8	-8.8	4
5	AE9FP	9mm Luger	147	9.53	FMJ FP	1000	976	953	933	914	326	311	297	284	273	⊕	-1.4	-5.2	-11.5	4
5	AE38S3	38 Super +P	115	7.45	JHP	1130	1067	1016	974	938	326	290	264	242	225	⊕	-1.0	-4.1	-9.5	5
5	AE357S2	357 Sig	125	8.1	FMJ	1350	1266	1192	1130	1078	506	445	395	354	323	⊕	-0.5	-2.4	-6.1	4
5	AE38K	38 Special	130	8.42	FMJ	890	870	852	834	817	229	219	209	201	193	⊕	-2.0	-7.0	-15.1	4-V
5	AE38B	38 Special	158	10.24	LRN	770	758	745	733	722	208	201	195	189	183	⊕	-2.9	-9.8	-20.7	4-V
5	AE357A	357 Magnum	158	10.24	JSP	1240	1187	1139	1098	1063	539	494	455	423	396	⊕	-0.6	-3.0	-7.1	4-V
5	AE40R2	40 S&W	155	10.04	FMJ	1160	1095	1043	1000	963	463	413	374	344	319	⊕	-0.9	-3.8	-8.9	4
5	AE40R3	40 S&W	165	10.69	FMJ	1130	1078	1035	999	967	468	426	392	365	342	⊕	-1.0	-4.0	-9.1	4
5	AE40R1	40 S&W	180	11.66	FMJ	1000	972	946	923	901	400	377	358	340	324	⊕	-1.4	-5.3	-11.6	4
5	AE10A	10mm Auto	180	11.66	FMJ	1030	998	970	945	921	424	398	376	357	339	⊕	-1.3	-4.9	-10.9	5
5	AE44A	44 Rem. Magnum	240	15.55	JHP	1230	1169	1117	1073	1035	806	729	665	613	571	⊕	-0.7	-3.1	-7.4	4-V
5	AE44B	44 Rem. Magnum	240	15.55	JSP	1270	1204	1146	1098	1056	859	772	700	642	595	⊕	-0.6	-2.9	-6.9	4-V
5	AE45A	45 Auto	230	14.9	FMJ	890	872	856	840	824	404	389	374	360	347	⊕	-2.0	-6.9	-15.0	5
5	AE45LC	45 Colt	225	14.58	JSP	860	844	828	813	799	369	356	343	330	319	⊕	-2.2	-7.5	-16.1	4
<b>AMERICAN EAGLE SUPPRESSOR</b>																				
5	AE9SUP1	9mm Luger	124	8.04	FMJ	1030	996	966	940	915	292	273	257	243	231	⊕	-1.3	-4.9	-11.0	4
5	AE45SUP1	45 Auto	230	14.9	FMJ	840	821	803	785	769	360	344	329	315	302	⊕	-2.3	-8.0	-17.2	5
<b>AMERICAN EAGLE IRT</b>																				
5	AE9N1	9mm Luger	124	8.04	TMJ	1120	1070	1028	993	961	345	315	291	271	255	⊕	-1.0	-4.0	-9.3	4
5	AE9N2	9mm Luger	147	9.53	TMJ	1000	976	953	933	914	326	311	297	284	273	⊕	-1.4	-5.2	-11.5	4
5	AE40N1	40 S&W	180	11.66	TMJ	1000	972	946	923	901	400	377	358	340	324	⊕	-1.4	-5.3	-11.6	4
5	AE45N1	45 Auto	230	14.9	TMJ	850	834	819	804	790	369	355	343	330	319	⊕	-2.2	-7.7	-16.4	5

## FEDERAL PREMIUM® RIMFIRE

ATT	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)			ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)			WIND DRIFT IN INCHES 10 MPH CROSSWIND		HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 50 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE		TEST BARREL LENGTH INCHES	
				GRAINS	GRAMS		MUZZLE	50 YDS.	100 YDS.	MUZZLE	50 YDS.	100 YDS.	50 YDS.	100 YDS.	50 YDS.	100 YDS.		
<b>FEDERAL PREMIUM GOLD MEDAL®</b>																		
5		711B	22 Long Rifle	40	2.59	Solid	1080	994	930	104	88	77	1.1	4.2	⊕	-7.3		
8		719	22 Long Rifle	40	2.59	Solid	1200	1075	991	128	103	87	1.3	4.9	⊕	-6.0		
<b>FEDERAL PREMIUM HUNTER MATCH™</b>																		
8		720	22 Long Rifle	40	2.59	Match HP	1200	1075	991	128	103	87	1.3	4.9	⊕	-6.0		
<b>FEDERAL PREMIUM V•SHOK®</b>																		
1		P770	17 HMR	17	1.1	Speer TNT JHP	2530	2150	1804	242	174	123	0.9	3.8	⊕	-0.4		
1		P771	17 HMR	17	1.1	Hornady V-Max	2530	2194	1884	242	182	134	0.8	3.3	⊕	-0.3		
1		P765	22 Win. Magnum	30	1.94	Speer TNT HP	2200	1777	1419	322	210	134	1.3	6.0	⊕	-1.3		

## FEDERAL® RIMFIRE

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)			ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)			WIND DRIFT IN INCHES 10 MPH CROSSWIND		HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 50 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE		TEST BARREL LENGTH INCHES	
			GRAINS	GRAMS		MUZZLE	50 YDS.	100 YDS.	MUZZLE	50 YDS.	100 YDS.	50 YDS.	100 YDS.	50 YDS.	100 YDS.		
<b>FEDERAL GAME•SHOK®</b>																	
1		716	22 Long Rifle	25	1.62	No. 12 Lead Bird Shot	-	-	-	-	-	-	-	-	-	-	-
5		724	22 Long Rifle	31	2.01	CPHP	1430	1197	1046	141	99	75	1.8	7.1	⊕	-4.6	
15		712	22 Long Rifle	38	2.46	CPHP	1260	1110	1010	134	104	86	1.5	5.5	⊕	-5.5	
5		710	22 Long Rifle	40	2.59	CP Solid	1240	1103	1011	137	108	91	1.4	5.1	⊕	-5.6	
5		757	22 Win. Magnum	50	3.24	JHP	1530	1347	1197	260	201	159	1.2	4.7	⊕	-3.3	
<b>FEDERAL CHAMPION™</b>																	
5		745***	22 Long Rifle	36	2.33	CPHP	1260	1104	1003	127	97	80	1.5	5.7	⊕	-5.6	
5		AM22**	22 Long Rifle	40	2.59	Solid	1200	1075	991	128	103	87	1.3	4.9	⊕	-6.0	
5		510	22 Long Rifle	40	2.59	Solid	1240	1103	1011	137	108	91	1.4	5.1	⊕	-5.6	
5		737	22 Win. Magnum	40	2.59	FMJ	1880	1570	1311	314	219	153	1.4	5.8	⊕	-2.1	
<b>FEDERAL RANGE &amp; FIELD</b>																	
5		728*	22 Long Rifle	40	2.59	Solid	1200	1075	991	128	103	87	1.3	4.9	⊕	-6.0	
15		730*	22 Long Rifle	38	2.46	CPHP	1260	1110	1010	134	104	86	1.5	5.5	⊕	-5.5	

\*\*\* 525-count bulk pack  
\*\* 325-count bulk pack  
\* 275-count bulk pack

## AMERICAN EAGLE® RIMFIRE

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)			ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)			WIND DRIFT IN INCHES 10 MPH CROSSWIND		HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 50 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE	
			GRAINS	GRAMS		MUZZLE	50 YDS.	100 YDS.	MUZZLE	50 YDS.	100 YDS.	50 YDS.	100 YDS.	50 YDS.	100 YDS.
<b>AMERICAN EAGLE</b>															
1	AE17WSM1	17 WSM	20	1.3	Tipped Varmint	3000	2749	2511	400	336	280	0.4	1.6	⊕	0.3
5	AE22*	22 Long Rifle	38	2.46	CPHP	1260	1110	1010	134	104	86	1.5	5.5	⊕	-5.5
5	AE5022	22 Long Rifle	40	2.59	Solid	1240	1103	1011	137	108	91	1.4	5.1	⊕	-5.6
<b>AMERICAN EAGLE SUPPRESSOR</b>															
5	AE22SUP1	22 Long Rifle	45	2.92	CP Solid	970	908	856	94	82	73	1.0	3.7	⊕	-9.0

\* 40-count box

## FEDERAL PREMIUM SABOT SLUG

USAGE	FEDERAL LOAD NO.	GAUGE	SHELL LENGTH		SLUG TYPE	SLUG WEIGHT		VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST FOOT-POUND)					HEIGHT OF SLUG TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 25 YARDS, SIGHTS .5 INCHES ABOVE BORE LINE. AVERAGE RANGE					TEST BARREL LENGTH INCHES		
			INCHES	MM		OUNCES	GRAMS	MUZZLE	25 YDS.	50 YDS.	100 YDS.	150 YDS.	200 YDS.	MUZZLE	25 YDS.	50 YDS.	100 YDS.	150 YDS.	200 YDS.	25 YDS.	50 YDS.	100 YDS.		150 YDS.	200 YDS.
<b>FEDERAL PREMIUM VITAL•SHOK® TROPHY® COPPER (FULLY RIFLED SLUG BARREL)</b>																									
2	P151 TC	12	3	76	Trophy Copper Slug	.69	300	2000	1900	1800	1620	1450	1310	2665	2400	2160	1745	1400	1135	1.3	2.6	2.9	⊕	-7.1	30
2	P152 TC	12	2¾	70	Trophy Copper Slug	.69	300	1900	1800	1710	1530	1380	1240	2405	2165	1945	1565	1260	1030	1.7	2.9	3.3	⊕	-7.9	30
2	P209 TC	20	3	76	Trophy Copper Slug	.63	275	1900	1790	1690	1500	1340	1200	2205	1965	1750	1380	1090	875	1.6	3.0	3.4	⊕	-8.3	30
2	P208 TC	20	2¾	70	Trophy Copper Slug	.6																			