



# Rifle Ballistics

## Hornady® Product Lines:

**SI** Superformance® International™

**V** Varmint Express®

**C** Custom™

**DG** Dangerous Game™ Series

**LE** LEVERevolution®

**SF** Superformance®

**T** TAP® FPD™

**CD** Critical Defense®

**M** Match

**S** Steel Match®

**SM** Superformance® Match

**VM** Vintage Match™

**SV** Superformance® Varmint

All data from a 24" Bbl, unless otherwise noted.

Ammo Description				Velocity (m/sec)										Energy (joules)						Trajectory Tables (cm)						
CARTRIDGE	BULLET	ITEM #	WT (gram)	BC	MUZ	50 m	100 m	150 m	200 m	250 m	300 m	MUZ	50 m	100 m	150 m	200 m	250 m	300 m	MUZ	50 m	100 m	150 m	200 m	250 m	300 m	
V	17 Mach 2	15.5 gr. NTX	83176	1.00	0.115	625	518	428	358	313	285	265	196	135	92	64	49	41	35	-5.0	2.2	0	-15.6	-50.7	-110.9	-199.7
V	17 Mach 2	17 gr. V-MAX	83177	1.10	0.125	640	540	453	381	331	299	277	226	160	113	80	60	49	42	-5.0	1.8	0	-13.8	-44.8	-98.4	-178.0
V	17 HMR	15.5 gr. NTX	83171	1.00	0.115	770	648	541	446	370	321	291	298	211	147	100	69	52	43	-5.0	0.5	0	-9.0	-30.6	-70.3	-132.7
V	17 HMR	17 gr. V-MAX	83170	1.10	0.125	777	664	564	472	396	340	306	333	243	175	123	86	64	52	-5.0	0.3	0	-8.1	-27.5	-62.8	-118.3
V	17 HMR	20 gr. XTP	83172	1.30	0.125	724	616	520	435	367	322	294	340	246	175	123	87	67	56	-5.0	0.8	0	-10.0	-33.2	-74.9	-139.0
SV	17 Hornet	15.5 gr. NTX SPF	83004	1.00	0.114	1177	1011	869	738	618	512	422	695	514	379	273	192	131	90	-5.0	-1.3	0	-2.0	-8.6	-21.8	-44.1
SV	17 Hornet	20 gr. V-MAX	83005	1.30	0.185	1113	1013	923	838	757	681	611	802	666	553	455	372	301	242	-5.0	-1.3	0	-1.6	-6.8	-16.3	-30.8
V	204 Ruger	24 gr. NTX (26" Bbl)	83209	1.56	0.170	1341	1213	1100	993	895	804	721	1399	1145	940	767	624	503	404	-5.0	-1.7	0	-0.4	-3.3	-9.3	-19.0
V	204 Ruger	32 gr. V-MAX (26" Bbl)	83204	2.07	0.210	1288	1187	1096	1010	929	853	782	1720	1462	1246	1057	895	754	635	-5.0	-1.6	0	-0.4	-3.3	-9.0	-18.0
V	204 Ruger	40 gr. V-MAX (26" Bbl)	83206	2.59	0.275	1189	1117	1050	986	925	867	812	1832	1617	1431	1261	1110	974	855	-5.0	-1.5	0	-0.7	-4.0	-10.1	-19.4
V	204 Ruger	45 gr. SP (26" Bbl)	83208	2.92	0.245	1105	1030	960	893	830	769	711	1780	1546	1345	1164	1004	862	738	-5.0	-1.3	0	-1.3	-5.8	-13.9	-25.9
V	5.45 x 39MM	60 gr. V-MAX (16" Bbl)	8124	3.89	0.285	856	803	752	703	655	609	566	1426	1253	1100	960	834	721	623	-5.0	-0.6	0	-3.7	-12.5	-27.1	-48.0
V	22 WMR	30 gr. V-MAX	83202	1.94	0.095	671	537	427	345	300	271	250	437	280	177	116	87	72	61	-5.0	1.9	0	-15.5	-51.8	-115.7	-211.2
V	22 Hornet	35 gr. V-MAX	8302	2.27	0.109	936	792	664	548	447	368	318	993	711	501	340	226	153	115	-5.0	-0.5	0	-5.1	-18.6	-44.7	-88.2
SV	222 Rem	35 gr. NTX	8309	2.27	0.177	1146	1040	944	853	768	688	615	1490	1226	1011	826	669	537	428	-5.0	-1.3	0	-1.4	-6.2	-15.3	-29.3
V	222 Rem	40 gr. V-MAX	8310	2.59	0.200	1097	1006	923	844	769	698	632	1561	1313	1105	923	767	631	518	-5.0	-1.3	0	-1.6	-6.7	-16.0	-30.1
SV	222 Rem	50 gr. V-MAX	8316	3.24	0.242	1020	948	882	818	757	699	644	1684	1457	1262	1085	929	791	672	-5.0	-1.1	0	-2.0	-7.8	-17.9	-32.7
SV	223 Rem	35 gr. NTX	83266	2.27	0.177	1219	1107	1006	911	822	739	662	1686	1390	1148	941	767	620	498	-5.0	-1.5	0	-0.9	-4.9	-12.5	-24.4
V	223 Rem	40 gr. V-MAX	8325	2.59	0.200	1158	1063	976	894	816	742	674	1739	1464	1235	1035	863	714	589	-5.0	-1.4	0	-1.2	-5.5	-13.5	-25.8
SV	223 Rem	53 gr. V-MAX	8025	3.43	0.290	1056	995	937	882	828	776	728	1916	1700	1509	1335	1178	1036	910	-5.0	-1.2	0	-1.5	-6.2	-14.6	-26.8
SF	223 Rem	55 gr. GMX	83274	3.56	0.245	991	922	858	796	736	680	626	1749	1515	1312	1129	967	823	699	-5.0	-1.0	0	-2.3	-8.5	-19.3	-35.1
V	223 Rem	55 gr. V-MAX	8327	3.56	0.255	988	922	860	800	743	688	636	1738	1514	1319	1142	984	844	722	-5.0	-1.0	0	-2.3	-8.4	-19.1	-34.7
V	223 Rem	55 gr. V-MAX w/Moly	83273	3.56	0.255	988	922	860	800	743	688	636	1738	1514	1319	1142	984	844	722	-5.0	-1.0	0	-2.3	-8.4	-19.1	-34.7
T	223 Rem	55 gr. TAP-FPD	83278	3.56	0.255	988	922	860	800	743	688	636	1738	1514	1319	1142	984	844	722	-5.0	-1.0	0	-2.3	-8.4	-19.1	-34.7
S	223 Rem	55 gr. HP	80274	3.56	0.254	988	921	860	800	742	687	635	1738	1513	1317	1140	982	841	719	-5.0	-1.0	0	-2.3	-8.4	-19.1	-34.8
C	223 Rem	68 gr. BTHP	80289	4.41	0.355	902	857	815	773	733	693	656	1794	1620	1464	1318	1183	1059	948	-5.0	-0.8	0	-2.9	-9.9	-21.5	-38.0
M	223 Rem	75 gr. BTHP	8026	4.86	0.395	850	812	775	738	703	668	635	1758	1601	1459	1324	1200	1084	980	-5.0	-0.6	0	-3.4	-11.4	-24.5	-42.7
T	223 Rem	75 gr. TAP-FPD	80268	4.86	0.395	850	812	775	738	703	668	635	1758	1601	1459	1324	1200	1084	980	-5.0	-0.6	0	-3.4	-11.4	-24.5	-42.7
SM	223 Rem	75 gr. BTHP	80264	4.86	0.395	893	853	815	777	741	705	671	1939	1769	1615	1469	1334	1208	1094	-5.0	-0.8	0	-2.9	-9.9	-21.4	-37.6
S	223 Rem	75 gr. BTHP Steel	80261	4.86	0.395	850	812	775	738	703	668	635	1758	1601	1459	1324	1200	1084	980	-5.0	-0.6	0	-3.4	-11.4	-24.5	-42.7
SF	5.56 NATO	55 gr. GMX (20" Bbl)	81254	3.56	0.245	954	887	825	764	706	651	599	1622	1403	1213	1041	889	754	639	-5.0	-0.9	0	-2.7	-9.6	-21.8	-39.0
SF	5.56 NATO	75 gr. BTHP (20" Bbl)	81264	4.86	0.395	887	847	809	772	735	700	666	1912	1744	1592	1448	1314	1190	1077	-5.0	-0.8	0	-2.9	-10.1	-21.6	-38.3
SV	22-250 Rem	35 gr. NTX	8334	2.27	0.177	1356	1232	1121	1017	921	832	750	2087	1722	1425	1173	963	785	638	-5.0	-1.7	0	-0.3	-3.0	-8.6	-17.6
V	22-250 Rem	40 gr. V-MAX	8335	2.59	0.200	1265	1161	1068	979	896	819	746	2074	1749	1478	1243	1042	869	722	-5.0	-1.6	0	-0.6	-3.7	-10.0	-19.8
V	22-250 Rem	50 gr. V-MAX	8336	3.24	0.242	1158	1079	1006	936	869	806	746	2174	1886	1639	1419	1224	1052	902	-5.0	-1.4	0	-1.0	-4.8	-11.9	-22.6
SV	22-250 Rem	50 gr. V-MAX	83366	3.24	0.242	1219	1136	1060	986	917	852	790	2409	2091	1819	1577	1363	1175	1012	-5.0	-1.5	0	-0.6	-3.8	-10.0	-19.4
V	22-250 Rem	50 gr. V-MAX w/Moly	83363	3.24	0.242	1158	1079	1006	936	869	806	746	2174	1886	1639	1419	1224	1052	902	-5.0	-1.4	0	-1.0	-4.8	-11.9	-22.6
V	22-250 Rem	55 gr. V-MAX	8337	3.56	0.255	1122	1048	981	915	853	793	737	2243	1959	1714	1493	1297	1122	969	-5.0	-1.4	0	-1.2	-5.3	-12.9	-24.2
C	22-250 Rem	60 gr. SP	8039	3.89	0.264	1076	1008	944	883	824	767	714	2251	1974	1733	1515	1320	1145	992	-5.0	-1.3	0	-1.5	-6.1	-14.5	-26.7
V	220 Swift	50 gr. V-MAX w/Moly	83213	3.24	0.242	1173	1093	1019	948	881	817	757	2231	1936	1684	1457	1258	1082	929	-5.0	-1.4	0	-0.9	-4.5	-11.4	-21.8
V	220 Swift	55 gr. V-MAX	8324	3.56	0.255	1122	1048	981	915	853	793	737	2243	1959	1714	1493	1297	1122	969	-5.0	-1.4	0	-1.2	-5.3	-12.9	-24.2
C	220 Swift	60 gr. HP	8122	3.89	0.264	1097	1028	963	901	841	784	730	2341	2054	1804	1578	1376	1196	1038	-5.0	-1.3	0	-1.3	-5.7	-13.6	-25.3
SV	243 Win	58 gr. V-Max	8343	3.76	0.250	1196	1117	1044	974	908	845	785	2690	2346	2050	1784	1549	1341	1159	-5.0	-1.5	0	-0.8	-4.1	-10.5	-20.2
V	243 Win	58 gr. V-MAX w/Moly	83423	3.76	0.250	1143	1067	997	929	865	804	746	2456	2140	1868	1623	1407	1215	1047	-5.0	-1.4	0	-1.1	-5.0	-12.3	-23.1
C	243 Win	75 gr. HP	8040	4.86	0.294	1018	959	904	850	799	749	702	2519	2236	1987	1758	1551	1364	1197	-5.0	-1.1	0	-1.9	-7.1	-16.3	-29.7
SI	243 Win	80 gr. GMX	80458	5.18	0.300	1044	985	930	876	825	775	728	2825	2516	2243	1991	1763	1557	1374	-5.0	-1.2	0	-1.6	-6.5	-15.0	-27.4
SF	243 Win	95 gr. SST	80463	6.16	0.355	971	924	879	835	793	752	712	2902	2627	2380	2148	1935	1740	1563	-5.0	-1.0	0	-2.1	-7.8	-17.4	-31.2
C	243 Win	95 gr. SST	80464	6.16	0.355	917	872	829	787	746	706	668	2591	2342	2118	1907	1714	1536	1375	-5.0	-0.9	0	-2.7	-9.4	-20.6	-36.4
C	243 Win																									

# Rifle Ballistics (continued)

Ammo Description					Velocity (m/sec)							Energy (joules)							Trajectory Tables (cm)							
CARTRIDGE	BULLET	ITEM #	WT (gram)	BC	MUZ	50 m	100 m	150 m	200 m	250 m	300 m	MUZ	50 m	100 m	150 m	200 m	250 m	300 m	MUZ	50 m	100 m	150 m	200 m	250 m	300 m	
SI	6.5 x 55	120 gr. GMX	8148	7.78	0.450	869	834	801	769	737	705	2937	2708	2498	2298	2111	1935	1774	-5	-0.7	0	-3.1	-10.4	-22.2	-38.7	
VM	6.5 x 55	140 gr. BTHP	85508	9.07	0.580	792	767	743	718	694	671	648	2849	2670	2502	2340	2186	2041	1905	-5.0	-0.4	0	-4.0	-12.9	-26.9	-46.0
SF	6.5 x 55	140 gr. SST	85507	9.07	0.520	834	804	776	749	721	694	669	3153	2936	2736	2542	2360	2188	2029	-5.0	-0.6	0	-3.5	-11.4	-24.1	-41.6
M	6.5 Grendel	123 gr. A-MAX	8150	7.97	0.510	789	761	733	705	678	652	627	2484	2306	2142	1984	1835	1695	1566	-5.0	-0.3	0	-4.2	-13.4	-28.0	-48.0
C	6.5 Grendel	123 gr. SST	8152	7.97	0.510	799	770	742	714	687	660	635	2542	2361	2193	2032	1881	1738	1606	-5.0	-0.4	0	-4.0	-12.9	-27.1	-46.6
SF	6.5 Creedmoor	120 gr. GMX	81490	7.78	0.480	930	896	863	831	800	769	740	3361	3120	2899	2687	2487	2300	2127	-5.0	-0.9	0	-2.3	-8.2	-18.0	-31.7
M	6.5 Creedmoor	120 gr. A-MAX	81492	7.78	0.465	887	853	821	789	757	726	697	3059	2830	2619	2418	2229	2052	1888	-5.0	-0.8	0	-2.8	-9.7	-20.8	-36.4
SF	6.5 Creedmoor	129 gr. SST	81496	8.36	0.485	899	866	835	804	773	743	715	3380	3138	2915	2701	2500	2311	2136	-5.0	-0.8	0	-2.6	-9.2	-19.8	-34.6
SF	6.5 Creedmoor	129 gr. InterBond	81497	8.36	0.485	899	866	835	804	773	743	715	3380	3138	2915	2701	2500	2311	2136	-5.0	-0.8	0	-2.6	-9.2	-19.8	-34.6
M	6.5 Creedmoor	140 gr. A-MAX	81494	9.07	0.585	826	800	775	751	726	702	679	3096	2905	2728	2556	2393	2238	2093	-5.0	-0.6	0	-3.5	-11.4	-24.1	-41.3
V	6.8 SPC	110 gr. V-MAX (16" Bbl)	8346	7.13	0.370	783	744	706	669	633	599	566	2187	1973	1779	1597	1430	1277	1140	-5.0	-0.3	0	-4.6	-14.8	-31.2	-54.0
M	6.8 SPC	110 gr. BTHP (16" Bbl)	8146	7.13	0.360	783	743	704	666	630	594	560	2187	1967	1769	1583	1413	1257	1119	-5.0	-0.3	0	-4.7	-15.0	-31.5	-54.7
C	6.8 SPC	120 gr. SST (16" Bbl)	8347	7.78	0.400	750	714	680	647	614	582	552	2186	1984	1800	1626	1466	1319	1187	-5.0	-0.1	0	-5.2	-16.4	-34.1	-58.7
SF	270 Win	130 gr. InterBond	80548	8.42	0.460	975	939	904	869	836	803	771	4008	3712	3442	3183	2941	2714	2505	-5.0	-1.1	0	-1.9	-7.1	-15.9	-28.2
SI	270 Win	130 gr. GMX	80528	8.42	0.460	972	936	901	866	833	800	768	3983	3689	3420	3163	2922	2696	2488	-5.0	-1.1	0	-1.9	-7.2	-16.0	-28.5
SF	270 Win	130 gr. SST	80543	8.42	0.460	975	939	904	869	836	803	771	4008	3712	3442	3183	2941	2714	2505	-5.0	-1.1	0	-1.9	-7.1	-15.9	-28.2
C	270 Win	130 gr. SST	8054	8.42	0.460	933	897	863	830	797	765	734	3665	3392	3141	2901	2677	2466	2273	-5.0	-1.0	0	-2.3	-8.3	-18.1	-31.9
C	270 Win	130 gr. InterLock	8055	8.42	0.409	933	893	855	818	781	746	712	3665	3359	3080	2816	2571	2342	2134	-5.0	-0.9	0	-2.4	-8.5	-18.7	-33.1
SF	270 Win	140 gr. SST	80563	9.07	0.495	942	909	877	845	815	784	756	4025	3746	3489	3242	3010	2792	2590	-5.0	-1.0	0	-2.2	-7.9	-17.3	-30.4
C	270 Win	140 gr. InterLock BTSP	8056	9.07	0.486	896	863	832	801	771	741	713	3643	3383	3142	2912	2696	2492	2303	-5.0	-0.8	0	-2.7	-9.3	-20.0	-35.0
C	270 Win	150 gr. InterLock SP	8058	9.72	0.462	866	832	800	768	737	706	677	3643	3366	3111	2868	2640	2426	2229	-5.0	-0.7	0	-3.1	-10.4	-22.3	-38.9
SF	7 x 57 Mauser	139 gr. GMX	81556	9.01	0.486	835	804	774	744	715	687	659	3142	2911	2699	2495	2304	2124	1957	-5.0	-0.6	0	-3.5	-11.5	-24.4	-42.1
SF	7 x 57 Mauser	139 gr. SST	81553	9.01	0.486	841	810	780	750	721	692	665	3188	2955	2740	2534	2340	2157	1989	-5.0	-0.6	0	-3.4	-11.3	-23.9	-41.3
C	7 x 57 Mauser	139 gr. InterLock BTSP	8155	9.01	0.453	817	784	752	721	690	660	631	3006	2768	2549	2341	2145	1963	1796	-5.0	-0.5	0	-3.9	-12.5	-26.3	-45.5
SF	7MM-08 Rem	139 gr. GMX	80576	9.01	0.486	887	855	824	793	762	733	705	3544	3289	3055	2830	2619	2420	2236	-5.0	-0.8	0	-2.8	-9.5	-20.6	-35.9
SF	7MM-08 Rem	139 gr. SST	80573	9.01	0.486	899	866	835	804	774	744	715	3642	3382	3142	2912	2696	2492	2304	-5.0	-0.8	0	-2.6	-9.1	-19.8	-34.6
SF	280 Rem	139 gr. GMX	81586	9.01	0.486	936	902	870	838	807	776	747	3944	3666	3409	3163	2932	2715	2514	-5.0	-1.0	0	-2.2	-8.0	-17.6	-31.1
SF	280 Rem	139 gr. SST	81583	9.01	0.486	942	908	876	844	812	782	752	3996	3714	3455	3206	2972	2753	2549	-5.0	-1.0	0	-2.2	-7.9	-17.4	-30.6
SI	7 x 64	140 gr. GMX	8157	9.07	0.486	899	866	835	804	773	744	715	3667	3405	3163	2932	2714	2509	2320	-5	-0.8	0	-2.7	-9.2	-19.8	-34.6
SI	7 x 65R	140 gr. GMX	81578	9.07	0.486	869	837	806	776	746	717	689	3426	3178	2950	2731	2525	2332	2153	-5	-0.7	0	-3	-10.2	-21.8	-37.9
C	7MM Rem Mag	139 gr. InterLock BTSP	8059	9.01	0.453	960	923	888	854	820	787	755	4153	3841	3555	3282	3027	2789	2569	-5.0	-1.0	0	-2.1	-7.5	-16.7	-29.6
SF	7MM Rem Mag	139 gr. GMX	80592	9.01	0.486	972	938	905	872	840	809	779	4259	3961	3687	3424	3178	2946	2731	-5.0	-1.1	0	-1.9	-7.1	-15.7	-28.0
SF	7MM Rem Mag	139 gr. SST	80593	9.01	0.486	988	952	919	886	854	822	792	4393	4087	3805	3536	3282	3044	2824	-5.0	-1.1	0	-1.8	-6.7	-15.1	-26.8
SI	7MM Rem Mag	140 gr. GMX	80598	9.07	0.486	972	937	904	872	840	808	778	4287	3987	3711	3447	3198	2965	2749	-5	-1.1	0	-1.9	-7.1	-15.8	-28.0
SF	7MM Rem Mag	154 gr. InterBond	80628	9.98	0.525	945	913	883	854	824	796	768	4456	4164	3895	3636	3391	3160	2945	-5.0	-1.0	0	-2.1	-7.6	-16.8	-29.7
SF	7MM Rem Mag	154 gr. SST	8061	9.98	0.525	945	913	883	854	824	796	768	4456	4164	3895	3636	3391	3160	2945	-5.0	-1.0	0	-2.1	-7.6	-16.8	-29.7
C	7MM Rem Mag	154 gr. InterLock SP	8060	9.98	0.433	925	888	852	817	782	749	716	4271	3932	3623	3329	3054	2797	2562	-5.0	-0.9	0	-2.5	-8.6	-18.9	-33.2
C	7MM Rem Mag	154 gr. SST	8062	9.98	0.525	925	894	865	835	806	778	751	4271	3990	3730	3480	3244	3021	2813	-5.0	-0.9	0	-2.3	-8.2	-17.9	-31.4
SF	7MM Rem Mag	162 gr. SST	80633	10.50	0.550	924	894	866	838	810	783	757	4478	4196	3935	3683	3445	3218	3008	-5.0	-0.9	0	-2.3	-8.2	-17.8	-31.2
C	7MM Rem Mag	162 gr. InterLock BTSP	8063	10.50	0.514	896	865	836	806	777	749	722	4216	3930	3666	3412	3172	2946	2736	-5.0	-0.8	0	-2.7	-9.2	-19.8	-34.5
C	7MM Wby Mag	139 gr. GMX	80666	9.01	0.486	1006	970	936	903	870	838	808	4557	4241	3950	3672	3410	3164	2937	-5.0	-1.2	0	-1.6	-6.3	-14.2	-25.4
C	7MM Wby Mag	154 gr. InterBond	80689	9.98	0.525	975	943	912	882	852	823	795	4748	4440	4155	3882	3623	3379	3152	-5.0	-1.1	0	-1.9	-6.9	-15.3	-27.2
S	30 Carbine	110 gr. FMJ (20" Bbl)	8103	7.13	0.178	610	540	478	422	375	339	313	1325	1040	815	634	500	409	350	-5.0	1.8	0	-12.5	-39.1	-83.3	-147.8
CD	30 Carbine	110 gr. FTX (20" Bbl)	81030	7.13	0.178	610	540	478	422	375	339	313	1325	1040	815	634	500	409	350	-5.0	1.8	0	-12.5	-39.1	-83.3	-147.8
C	300 Whisper	110 gr. V-MAX (16" Bbl)	8089	7.13	0.290	724	676	631	587	545	505	468	1868	1629	1419	1227	1058	909	781	-5.0	0.2	0	-6.3	-19.9	-41.9	-73.0
C	300 Whisper	208 gr. A-MAX (16" Bbl)	80892	13.48	0.648	311	305	300	295	291	286	282	652	628	607	588	570	553	537	-5.0	10.7	0	-37.8	-104.3	-200.2	-323.7
LE	30-30 Win	140 gr. MonoFlex	82731	9.07	0.277	762	710	662	614	569	526	486	2634	2290	1988	1713	1469	1255	1073	-5.0	0.0	0	-5.6	-17.7	-37.6	-65.8
C	30-30 Win	150 gr. InterLock RN	8080	9.72	0.186	728	654	586	521	463	411	368	2580	2081	1670	1322	1041	820	659	-5.0	0.4	0	-7.6	-24.3	-52.8	-95.0
LE	30-30 Win	160 gr. FTX	82730	10.37	0.330	732	689	649	609	571	535	501	2775	2462	2183	1925	1693	1484	1301	-5.0	0.1	0	-5.9	-18.5	-38.8	-67.1
C	30-30 Win	170 gr. InterLock FP	8085	11.02	0.189	671	601	537	478	425	379	345	2477	1990	1591	1258	994	793	654	-5.0	1.0	0	-9.4	-29.8	-64.0	-114.4
LE	308 Marlin Express	140 gr. MonoFlex	82734	9.07	0.335	853	808	764	722	680	640	602	3305	2960	26											

# Rifle Ballistics (continued)

Ammo Description					Velocity (m/sec)							Energy (joules)							Trajectory Tables (cm)							
CARTRIDGE	BULLET	ITEM #	WT (gram)	BC	MUZ	50 m	100 m	150 m	200 m	250 m	300 m	MUZ	50 m	100 m	150 m	200 m	250 m	300 m	MUZ	50 m	100 m	150 m	200 m	250 m	300 m	
SF	308 Win	165 gr. GMX	8099	10.69	0.447	838	804	772	739	708	677	648	3757	3458	3185	2924	2679	2451	2242	-5.0	-0.6	0	-3.5	-11.6	-24.6	-42.7
C	308 Win	165 gr. InterLock BTSP	8098	10.69	0.435	823	788	755	723	691	659	630	3622	3324	3052	2792	2551	2325	2120	-5.0	-0.5	0	-3.8	-12.3	-26.0	-45.1
M	308 Win	168 gr. BTHP	8097	10.89	0.450	823	790	758	726	695	665	636	3687	3394	3125	2869	2629	2405	2199	-5.0	-0.5	0	-3.8	-12.2	-25.9	-44.7
M	308 Win	168 gr. A-MAX	8096	10.89	0.475	823	791	761	731	701	672	645	3687	3409	3153	2908	2678	2462	2263	-5.0	-0.5	0	-3.7	-12.0	-25.4	-43.9
SM	308 Win	168 gr. A-MAX	80964	10.89	0.475	866	833	802	771	740	711	682	4080	3778	3500	3234	2984	2749	2532	-5.0	-0.7	0	-3.1	-10.3	-22.2	-38.5
T	308 Win	168 gr. TAP-FPD	80968	10.89	0.475	823	791	761	731	701	672	645	3687	3409	3153	2908	2678	2462	2263	-5.0	-0.5	0	-3.7	-12.0	-25.4	-43.9
M	308 Win	178 gr. BTHP	8105	11.53	0.530	792	765	738	711	685	660	635	3623	3373	3142	2919	2709	2511	2327	-5.0	-0.4	0	-4.1	-13.1	-27.4	-47.0
SM	308 Win	178 gr. BTHP	8077	11.53	0.530	847	818	791	763	736	709	684	4142	3864	3607	3359	3124	2902	2697	-5.0	-0.6	0	-3.2	-10.8	-22.9	-39.6
SF	30-06 Sprg	150 gr. InterBond	81098	9.72	0.415	939	899	862	825	789	753	720	4284	3932	3611	3307	3023	2760	2518	-5.0	-1.0	0	-2.3	-8.3	-18.3	-32.3
SF	30-06 Sprg	150 gr. SST	81093	9.72	0.415	939	899	862	825	789	753	720	4284	3932	3611	3307	3023	2760	2518	-5.0	-1.0	0	-2.3	-8.3	-18.3	-32.3
SF	30-06 Sprg	150 gr. GMX	8112	9.72	0.415	939	899	862	825	789	753	720	4284	3932	3611	3307	3023	2760	2518	-5.0	-1.0	0	-2.3	-8.3	-18.3	-32.3
C	30-06 Sprg	150 gr. InterLock SP	8110	9.72	0.338	887	841	797	753	711	671	632	3824	3435	3085	2759	2460	2186	1942	-5.0	-0.7	0	-3.1	-10.6	-23.0	-40.5
C	30-06 Sprg	150 gr. SST	8109	9.72	0.415	887	849	813	777	742	708	676	3824	3504	3213	2936	2678	2438	2219	-5.0	-0.8	0	-2.9	-10.0	-21.5	-37.7
SF	30-06 Sprg	165 gr. InterBond	81158	10.69	0.447	902	867	833	799	766	734	703	4353	4015	3707	3412	3137	2879	2642	-5.0	-0.8	0	-2.7	-9.3	-20.1	-35.2
SF	30-06 Sprg	165 gr. SST	81153	10.69	0.447	902	867	833	799	766	734	703	4353	4015	3707	3412	3137	2879	2642	-5.0	-0.8	0	-2.7	-9.3	-20.1	-35.2
SI	30-06 Sprg	165 gr. GMX	81168	10.69	0.447	896	861	827	793	760	728	698	4294	3961	3655	3364	3092	2837	2602	-5.0	-0.8	0	-2.7	-9.4	-20.4	-35.8
C	30-06 Sprg	165 gr. BTSP InterLock	8115	10.69	0.435	853	818	784	751	718	686	656	3895	3579	3290	3015	2759	2519	2300	-5.0	-0.6	0	-3.3	-11.1	-23.6	-41.1
C	30-06 Sprg	165 gr. SST InterLock	81154	10.69	0.447	853	819	786	754	722	691	661	3895	3587	3306	3037	2785	2550	2335	-5.0	-0.6	0	-3.3	-11.0	-23.4	-40.7
M	30-06 M1 Garand	168 gr. A-MAX	81170	10.89	0.475	826	794	764	734	704	675	647	3715	3435	3177	2931	2699	2482	2282	-5.0	-0.5	0	-3.7	-11.9	-25.2	-43.6
SF	30-06 Sprg	180 gr. InterBond	81188	11.66	0.480	860	827	797	766	736	707	678	4310	3993	3702	3422	3159	2913	2685	-5.0	-0.7	0	-3.2	-10.6	-22.6	-39.2
SF	30-06 Sprg	180 gr. SST	81183	11.66	0.480	860	827	797	766	736	707	678	4310	3993	3702	3422	3159	2913	2685	-5.0	-0.7	0	-3.2	-10.6	-22.6	-39.2
C	30-06 Sprg	180 gr. InterLock SP	8118	11.66	0.425	823	788	754	720	688	656	625	3951	3619	3315	3027	2759	2509	2281	-5.0	-0.5	0	-3.8	-12.4	-26.2	-45.5
C	30-06 Sprg	180 gr. SST	81184	11.66	0.480	823	792	762	732	703	674	646	3951	3656	3384	3124	2879	2649	2438	-5.0	-0.5	0	-3.7	-12.0	-25.4	-43.8
SF	30 TC	150 gr. SST	81004	9.72	0.415	914	876	839	802	767	732	699	4065	3728	3421	3130	2859	2606	2376	-5.0	-0.9	0	-2.6	-9.0	-19.7	-34.7
SF	30 TC	150 gr. GMX	81006	9.72	0.415	890	852	816	780	745	711	678	3851	3529	3236	2957	2698	2457	2236	-5.0	-0.8	0	-2.9	-9.8	-21.3	-37.3
SF	30 TC	165 gr. SST	81014	10.69	0.447	869	834	801	768	736	704	674	4035	3719	3429	3152	2893	2651	2429	-5.0	-0.7	0	-3.1	-10.4	-22.3	-38.9
SF	300 RCM	150 gr. SST	82231	9.72	0.415	1009	967	928	889	851	814	779	4948	4548	4184	3840	3520	3222	2949	-5.0	-1.2	0	-1.7	-6.5	-14.8	-26.5
SF	300 RCM	150 gr. GMX	82230	9.72	0.415	995	954	915	876	839	802	767	4814	4424	4069	3733	3420	3129	2863	-5.0	-1.1	0	-1.8	-6.8	-15.4	-27.5
SF	300 RCM	165 gr. SST	82232	10.69	0.447	971	933	897	862	828	794	762	5039	4657	4307	3974	3662	3371	3103	-5.0	-1.1	0	-2.0	-7.3	-16.2	-28.8
SF	300 RCM	165 gr. InterBond	82227	10.69	0.447	971	933	897	862	828	794	762	5039	4657	4307	3974	3662	3371	3103	-5.0	-1.1	0	-2.0	-7.3	-16.2	-28.8
SF	300 RCM	165 gr. GMX	82229	10.69	0.447	954	917	882	847	813	779	747	4867	4496	4156	3833	3530	3247	2987	-5.0	-1.0	0	-2.1	-7.7	-17.1	-30.2
SF	300 RCM	180 gr. InterBond	82228	11.66	0.480	927	893	860	828	797	766	737	5008	4649	4319	4003	3705	3426	3167	-5.0	-0.9	0	-2.3	-8.3	-18.2	-32.0
SF	300 RCM	180 gr. SST	82235	11.66	0.480	927	893	860	828	797	766	737	5008	4649	4319	4003	3705	3426	3167	-5.0	-0.9	0	-2.3	-8.3	-18.2	-32.0
C	300 H&H Mag	180 gr. InterBond	8210	11.66	0.480	875	842	811	780	750	720	692	4464	4138	3838	3550	3280	3026	2792	-5.0	-0.7	0	-2.9	-10.0	-21.5	-37.4
SF	300 Win Mag	150 gr. GMX	82012	9.72	0.415	1036	994	953	914	875	838	802	5221	4801	4419	4058	3723	3411	3126	-5.0	-1.2	0	-1.5	-5.9	-13.6	-24.5
C	300 Win Mag	150 gr. SST	82014	9.72	0.415	998	957	918	879	841	805	770	4844	4451	4094	3756	3442	3150	2882	-5.0	-1.1	0	-1.8	-6.8	-15.3	-27.3
C	300 Win Mag	150 gr. InterLock BTSP	8201	9.72	0.349	998	949	903	858	814	771	731	4844	4380	3965	3576	3220	2892	2597	-5.0	-1.1	0	-1.9	-7.1	-16.1	-29.0
SF	300 Win Mag	165 gr. InterBond	82028	10.69	0.447	994	955	919	883	848	814	781	5280	4881	4516	4170	3845	3542	3263	-5.0	-1.1	0	-1.8	-6.7	-15.1	-27.0
SI	300 Win Mag	165 gr. GMX	82038	10.69	0.447	994	955	919	883	848	814	781	5280	4881	4516	4170	3845	3542	3263	-5.0	-1.1	0	-1.8	-6.7	-15.1	-27.0
C	300 Win Mag	165 gr. InterLock BTSP	8202	10.69	0.435	945	907	871	835	801	767	734	4774	4399	4057	3732	3428	3144	2883	-5.0	-1.0	0	-2.3	-8.1	-17.7	-31.3
C	300 Win Mag	165 gr. SST	82024	10.69	0.447	945	908	873	838	804	771	740	4774	4409	4075	3757	3459	3181	2925	-5.0	-1.0	0	-2.2	-8.0	-17.6	-31.1
M	300 Win Mag	178 gr. A-MAX	8203	11.53	0.495	902	870	839	809	779	749	721	4696	4366	4062	3771	3496	3238	2998	-5.0	-0.9	0	-2.6	-9.1	-19.6	-34.2
SF	300 Win Mag	180 gr. InterBond	82198	11.66	0.480	954	919	886	854	822	791	761	5309	4932	4584	4252	3940	3646	3375	-5.0	-1.0	0	-2.1	-7.5	-16.7	-29.6
C	300 Win Mag	180 gr. InterLock SP	8200	11.66	0.425	902	865	829	794	759	726	693	4748	4362	4010	3675	3362	3071	2804	-5.0	-0.8	0	-2.7	-9.4	-20.3	-35.7
SF	300 Win Mag	180 gr. SST	82193	11.66	0.480	954	919	886	854	822	791	761	5309	4932	4584	4252	3940	3646	3375	-5.0	-1.0	0	-2.1	-7.5	-16.7	-29.6
C	300 Win Mag	180 gr. SST	82194	11.66	0.480	902	869	837	806	775	745	716	4748	4405	4089	3787	3502	3235	2988	-5.0	-0.8	0	-2.6	-9.1	-19.7	-34.4
M	300 Win Mag	195 gr. BTHP	8218	12.64	0.550	893	864	837	809	782	755	730	5040	4720	4423	4136	3864	3607	3367	-5.0	-0.8	0	-2.7	-9.1	-19.6	-34.2
C	300 Wby Mag	150 gr. InterBond	82219	9.72	0.415	1029	986	946	907	868	831	795	5144	4730	4353	3997	3666	3358	3076	-5.0	-1.2	0	-1.5	-6.1	-13.9	-25.1
C	300 Wby Mag	165 gr. GMX	82220	10.69	0.447	957	920	885	849	815	782	750	4898	4525	4184	3858	3554	3270	3008	-5.0	-1.0	0	-2.1	-7.6	-16.9	-30.0
C	300 Wby Mag	180 gr. InterLock SP	8222	11.66	0.425	951	912	875	839	803	768	735	5275	4853	4468	4102	3760	3442	3151	-5.0	-1.0	0	-2.2	-7.9	-17.4	-30.9
C	7.62x39	123 gr. SST (20" Bbl)	8078	7.97	0.260	719	666	616	5																	

# Rifle Ballistics (continued)

Ammo Description					Velocity (m/sec)							Energy (joules)						Trajectory Tables (cm)								
CARTRIDGE	BULLET	ITEM #	WT (gram)	BC	MUZ	50m	100m	150m	200m	250m	300m	MUZ	50m	100m	150m	200m	250m	300m	MUZ	50m	100m	150m	200m	250m	300m	
C	338 Win Mag	225 gr. SST	82234	14.58	0.515	849	819	791	762	734	707	681	5254	4892	4557	4235	3931	3644	3378	-5.0	-0.7	0	-3.3	-10.8	-23.0	-39.8
SF	338 Win Mag	225 gr. InterBond	82338	14.58	0.515	866	835	807	778	750	722	695	5464	5090	4744	4411	4097	3801	3526	-5.0	-0.7	0	-3.0	-10.2	-21.7	-37.7
SF	338 Win Mag	225 gr. SST	82233	14.58	0.515	866	835	807	778	750	722	695	5464	5090	4744	4411	4097	3801	3526	-5.0	-0.7	0	-3.0	-10.2	-21.7	-37.7
M	338 Lapua	250 gr. BTHP	8230	16.20	0.670	884	860	838	815	793	771	749	6330	5997	5685	5382	5091	4813	4551	-5.0	-0.8	0	-2.7	-9.1	-19.4	-33.7
M	338 Lapua	285 gr. BTHP	82306	18.47	0.700	837	815	794	773	752	732	712	6466	6133	5822	5517	5225	4945	4682	-5.0	-0.6	0	-3.2	-10.6	-22.4	-38.5
LE	35 Rem	200 gr. FTX	82735	12.96	0.300	678	634	591	551	512	475	442	2981	2601	2268	1965	1697	1463	1264	-5.0	0.6	0	-7.6	-23.4	-48.7	-84.3
SF	35 Whelen	200 gr. SP InterLock	81193	12.96	0.282	887	832	779	728	679	632	587	5099	4482	3937	3438	2988	2586	2234	-5.0	-0.7	0	-3.3	-11.4	-24.8	-44.0
C	358 Win	200 gr. SP	91318	12.96	0.282	754	704	657	610	566	524	485	3689	3212	2794	2413	2074	1777	1523	-5.0	0.0	0	-5.7	-18.1	-38.2	-66.8
SI	9.3 x 74R	250 gr. GMX	82309	16.20	0.360	777	737	698	661	624	588	555	4891	4398	3952	3536	3154	2806	2495	-5	-0.2	0	-4.8	-15.3	-32.2	-55.8
DG	9.3 x 74R	286 gr. SP-RP	82304	18.53	0.400	719	685	651	619	587	556	527	4796	4343	3933	3547	3192	2866	2575	-5.0	0.2	0	-5.9	-18.3	-37.9	-65.0
SI	9.3 x 62	250 gr. GMX	82308	16.20	0.360	762	722	684	647	611	576	543	4704	4225	3794	3390	3021	2685	2386	-5	-0.1	0	-5.1	-16.1	-33.8	-58.5
DG	9.3 x 62	286 gr. SP-RP	82303	18.53	0.400	719	685	651	619	587	556	527	4796	4343	3933	3547	3192	2866	2575	-5.0	0.2	0	-5.9	-18.3	-37.9	-65.0
DG	376 Steyr	225 gr. InterLock SP-RP	8234	14.58	0.320	792	747	703	661	620	580	543	4579	4066	3608	3184	2799	2453	2148	-5.0	-0.3	0	-4.7	-15.0	-31.9	-55.6
DG	376 Steyr	270 gr. InterLock SP-RP	8237	17.50	0.380	792	754	717	681	645	611	578	5495	4973	4500	4054	3644	3267	2928	-5.0	-0.3	0	-4.4	-14.2	-30.0	-52.0
DG	375 H&H	270 gr. SP-RP SPF	8508	17.50	0.380	853	813	775	737	700	664	630	6373	5785	5252	4749	4285	3856	3469	-5.0	-0.6	0	-3.4	-11.5	-24.6	-42.9
DG	375 H&H	270 gr. SP-RP	82312	17.50	0.380	823	783	746	709	673	637	604	5926	5371	4869	4395	3958	3555	3192	-5.0	-0.5	0	-3.9	-12.8	-27.2	-47.3
DG	375 H&H	300 gr. DGS SPF	8509	19.44	0.275	811	757	706	657	609	564	521	6391	5571	4851	4193	3607	3089	2643	-5.0	-0.3	0	-4.5	-14.9	-31.9	-56.3
DG	375 H&H	300 gr. DGS	82322	19.44	0.275	771	719	670	622	575	532	491	5782	5024	4360	3756	3220	2749	2348	-5.0	-0.1	0	-5.4	-17.2	-36.5	-64.1
DG	375 H&H	300 gr. DGX	82332	19.44	0.275	771	719	670	622	575	532	491	5782	5024	4360	3756	3220	2749	2348	-5.0	-0.1	0	-5.4	-17.2	-36.5	-64.1
DG	375 Ruger	270 gr. SP-RP	8231	17.50	0.380	866	825	786	748	711	674	640	6557	5954	5409	4895	4419	3980	3582	-5.0	-0.7	0	-3.3	-11.0	-23.7	-41.4
DG	375 Ruger	300 gr. DGS	8232	19.44	0.275	811	757	706	657	609	564	521	6391	5571	4851	4193	3607	3089	2643	-5.0	-0.3	0	-4.5	-14.9	-31.9	-56.3
DG	375 Ruger	300 gr. DGX	82333	19.44	0.275	811	757	706	657	609	564	521	6391	5571	4851	4193	3607	3089	2643	-5.0	-0.3	0	-4.5	-14.9	-31.9	-56.3
DG	404 Jeffery	400 gr. DGX	82338	25.92	0.325	701	659	619	580	543	507	474	6371	5629	4970	4364	3820	3336	2916	-5.0	0.4	0	-6.7	-20.9	-43.5	-75.0
DG	404 Jeffery	400 gr. DGS	8239	25.92	0.325	701	659	619	580	543	507	474	6371	5629	4970	4364	3820	3336	2916	-5.0	0.4	0	-6.7	-20.9	-43.5	-75.0
C	405 Win	300 gr. InterLock SP	8241	19.44	0.250	671	618	568	521	476	436	400	4372	3707	3138	2635	2206	1845	1554	-5.0	0.8	0	-8.3	-25.9	-54.4	-95.1
DG	416 Rem Mag	400 gr. DGX	82673	25.92	0.319	732	688	646	605	566	529	494	6937	6130	5412	4751	4156	3625	3164	-5.0	0.1	0	-6.0	-18.8	-39.3	-68.2
DG	416 Rem Mag	400 gr. DGS	82674	25.92	0.319	732	688	646	605	566	529	494	6937	6130	5412	4751	4156	3625	3164	-5.0	0.1	0	-6.0	-18.8	-39.3	-68.2
DG	416 Ruger	400 gr. DGX	82665	25.92	0.319	732	688	646	605	566	529	494	6937	6130	5412	4751	4156	3625	3164	-5.0	0.1	0	-6.0	-18.8	-39.3	-68.2
DG	416 Ruger	400 gr. DGS	82666	25.92	0.319	732	688	646	605	566	529	494	6937	6130	5412	4751	4156	3625	3164	-5.0	0.1	0	-6.0	-18.8	-39.3	-68.2
DG	416 Rigby	400 gr. DGX	82663	25.92	0.319	736	692	650	609	570	533	498	7024	6209	5484	4816	4214	3677	3209	-5.0	0.1	0	-5.9	-18.5	-38.7	-67.1
DG	416 Rigby	400 gr. DGS	8265	25.92	0.319	736	692	650	609	570	533	498	7024	6209	5484	4816	4214	3677	3209	-5.0	0.1	0	-5.9	-18.5	-38.7	-67.1
SF	444 Marlin	265 gr. InterLock FP	82453	17.17	0.189	732	658	591	527	468	417	373	4596	3722	2998	2384	1885	1490	1198	-5.0	0.4	0	-7.4	-23.8	-51.6	-92.8
LE	444 Marlin	265 gr. FTX	82744	17.17	0.225	709	648	592	537	487	441	401	4313	3606	3006	2480	2038	1671	1380	-5.0	0.5	0	-7.5	-23.6	-50.2	-88.8
LE	45-70 Govt	250 gr. MonoFlex	82741	16.20	0.175	617	546	482	425	376	339	313	3087	2415	1885	1461	1147	932	796	-5.0	1.7	0	-12.2	-38.3	-81.9	-145.7
LE	45-70 Govt	325 gr. FTX	82747	21.06	0.230	610	555	506	459	417	380	350	3914	3248	2693	2218	1829	1521	1294	-5.0	1.5	0	-11.1	-34.1	-71.3	-124.7
LE	450 Marlin	325 gr. FTX	82750	21.06	0.230	678	620	567	515	468	425	387	4844	4052	3380	2795	2303	1898	1580	-5.0	0.7	0	-8.4	-26.2	-55.3	-97.4
C	450 Marlin	350 gr. InterLock FP	8250	22.68	0.195	640	574	515	459	410	369	337	4647	3743	3004	2391	1905	1541	1290	-5.0	1.3	0	-10.5	-32.9	-70.2	-124.5
DG	450/400 Nit Exp	400 gr. DGS	8242	25.92	0.325	625	585	549	513	479	447	418	5061	4444	3901	3407	2972	2590	2266	-5.0	1.1	0	-9.3	-28.0	-57.6	-98.7
DG	450/400 Nit Exp	400 gr. DGX	82433	25.92	0.325	625	585	549	513	479	447	418	5061	4444	3901	3407	2972	2590	2266	-5.0	1.1	0	-9.3	-28.0	-57.6	-98.7
DG	450 Nitro Express	480 gr. DGX	8255	31.10	0.285	655	609	566	524	485	449	416	6680	5775	4986	4278	3662	3131	2688	-5.0	0.8	0	-8.5	-26.1	-54.2	-93.8
DG	450 Nitro Express	480 gr. DGS	8256	31.10	0.285	655	609	566	524	485	449	416	6680	5775	4986	4278	3662	3131	2688	-5.0	0.8	0	-8.5	-26.1	-54.2	-93.8
C	450 Bushmaster	250 gr. FTX (20" Bbl)	82244	16.20	0.210	671	608	550	495	445	401	365	3643	2992	2449	1985	1605	1302	1077	-5.0	0.9	0	-9.0	-28.2	-59.9	-106.1
DG	458 Win Mag	500 gr. DGX	85833	32.40	0.295	652	608	566	526	488	452	420	6894	5988	5196	4481	3856	3315	2860	-5.0	0.9	0	-8.5	-26.0	-53.9	-93.2
DG	458 Win Mag	500 gr. DGS	8585	32.40	0.295	652	608	566	526	488	452	420	6894	5988	5196	4481	3856	3315	2860	-5.0	0.9	0	-8.5	-26.0	-53.9	-93.2
DG	458 Lott	500 gr. DGX	82613	32.40	0.295	701	655	611	569	528	490	455	7964	6947	6053	5240	4520	3890	3353	-5.0	0.4	0	-6.9	-21.6	-45.2	-78.4
DG	458 Lott	500 gr. DGS	8262	32.40	0.295	701	655	611	569	528	490	455	7964	6947	6053	5240	4520	3890	3353	-5.0	0.4	0	-6.9	-21.6	-45.2	-78.4
DG	470 Nitro Express	500 gr. DGX	8263	32.40	0.290	655	610	568	527	488	452	419	6959	6031	5221	4492	3855	3305	2845	-5.0	0.8	0	-8.4	-25.8	-53.7	-93.0
DG	470 Nitro Express	500 gr. DGS	8264	32.40	0.290	655	610	568	527	488	452	419	6959	6031	5221	4492	3855	3305	2845	-5.0	0.8	0	-8.4	-25.8	-53.7	-93.0
DG	500 Nitro Express	570 gr. DGX	8268	36.94	0.295	655	611	569	529	490	455	422	7933	6892	5982	5160	4441	3817	3293	-5.0	0.8	0	-8.4	-25.7	-53.4	-92.2
DG	500 Nitro Express	570 gr. DGS	8269	36.94	0.295	655	611	569	529	490	455	422	7933	6892	5982	5160	4441	3817	3293	-5.0	0.8	0	-8.4	-25.7	-53.4	-92.2
M	50 BMG																									

# Handgun Ballistics

## Hornady® Product Lines:

C Custom™  
 LE LEVERevolution®  
 T TAP® FPD™  
 S Steel Match®  
 CD Critical Defense®  
 DUTY Critical DUTY®

Ammo Description							Velocity (m/sec)			Energy (joules)		
CARTRIDGE	BULLET	ITEM#	WEIGHT (Grams)	BC	BARREL LENGTH	MUZZLE	50 m	100 m	MUZZLE	50 m	100 m	
CD	22 WMR	45 gr. FTX	83200	2.92	0.110	1½" V	305	278	258	135	113	97
C	25 Auto	35 gr. XTP	90012	2.27	0.072	2"	274	245	223	85	68	56
C	32 Auto	60 gr. XTP	90062	3.89	0.090	4"	305	273	250	181	145	122
CD	32 NAA	80 gr. FTX	90070	5.18	0.136	4"	305	283	265	241	207	183
CD	32 H&R	80gr. FTX	90060	5.18	0.136	4"	351	314	290	319	256	218
C	380 Auto	90 gr. XTP	90102	5.83	0.099	4"	305	276	254	271	222	188
CD	380 Auto	90 gr. FTX	90080	5.83	0.099	4"	305	276	254	271	222	188
C	9MM Luger	115 gr. XTP	90252	7.45	0.129	4"	352	313	288	462	366	310
S	9MM Luger	115 gr. HAP	90271	7.45	0.129	4"	352	313	288	462	366	310
CD	9MM Luger	115 gr. FTX	90250	7.45	0.129	4"	346	310	286	446	357	304
C	9MM Luger	124 gr. XTP	90242	8.04	0.165	4"	338	311	291	460	388	341
T	9MM Luger	124 gr. TAP-FPD	90248	8.04	0.165	4"	338	311	291	460	388	341
S	9MM Luger	125 gr. HAP	90275	8.10	0.158	4"	338	310	290	464	389	340
DUTY	9MM Luger	135 gr. FlexLock	90236	8.75	0.195	4"	308	291	278	415	371	337
DUTY	9MM Luger +P	135 gr. FlexLock	90226	8.75	0.195	4"	338	315	297	501	433	386
C	9MM Luger	147 gr. XTP	90282	9.53	0.212	4"	297	284	272	421	383	353
C	9x 18MM Makarov	95 gr. XTP	91002	6.16	0.127	4"	305	281	263	286	244	213
CD	9x 18MM Makarov	95 gr. FTX	91000	6.16	0.100	4"	305	276	255	286	234	200
CD	38 Special Lite	90 gr. FTX	90300	5.83	0.099	4"	366	312	281	390	285	231
CD	38 Special	110 gr. FTX	90310	7.13	0.131	4" V	308	284	266	338	288	253
CD	38 Special+P	110 gr. FTX	90311	7.13	0.131	4" V	332	301	280	393	323	279
C	38 Special	125 gr. XTP	90322	8.10	0.151	4" V	274	260	247	305	273	247
C	38 Special	158 gr. XTP	90362	10.24	0.206	4" V	244	235	227	304	284	265
CD	357 Magnum	125 gr. FTX	90500	8.10	0.150	8" V	457	395	348	847	631	490
C	357 Magnum	125 gr. XTP	90502	8.10	0.151	8" Vt	457	395	348	847	633	492
C	357 Magnum	140 gr. XTP	90552	9.07	0.169	8" V	411	364	330	768	602	494
LE	357 Magnum	140 gr. FTX	92755	9.07	0.169	8" V	439	386	346	874	676	542
C	357 Magnum	158 gr. XTP	90562	10.24	0.206	8" V	381	348	323	743	619	534
C	357 SIG	124 gr. XTP	9130	8.04	0.165	4"	411	363	329	680	530	434
C	357 SIG	147 gr. XTP	9131	9.53	0.212	4"	373	343	320	664	559	487
C	40 S&W	155 gr. XTP	9132	10.04	0.137	4"	360	320	295	650	515	436
T	40 S&W	155 gr. TAP-FPD	91328	10.04	0.137	4"	360	320	295	650	515	436
CD	40 S&W	165 gr. FTX	91340	10.69	0.145	3"	319	294	276	542	462	407
DUTY	40 S&W	175 gr. FlexLock	91376	11.34	0.155	4"	308	287	271	537	469	418
S	40 S&W	180 gr. HAP	91362	11.66	0.164	4"	290	274	260	489	437	396
C	40 S&W	180 gr. XTP	9136	11.66	0.164	4"	290	274	260	489	437	396
C	10MM Auto	155 gr. HP/XTP	9122	10.04	0.137	5"	386	337	306	747	571	471
C	10MM Auto	180 gr. XTP	9126	11.66	0.164	5"	360	326	302	755	618	532
C	10MM Auto	200 gr. XTP	9129	12.96	0.199	5"	320	301	286	664	588	531
C	44-40 Cowboy	205 gr. Cowboy	9075	13.28	0.123	7½" V	221	209	198	324	290	260
CD	44 Special	165 gr. FTX	90700	10.69	0.125	2½" V	274	257	242	402	353	313
C	44 Special	180 gr. XTP	9070	11.66	0.138	7½" V	305	283	266	542	467	413
C	44 Rem Mag	180 gr. XTP	9081	11.66	0.138	7½" V	472	402	350	1302	944	713
C	44 Rem Mag	200 gr. XTP	9080	12.96	0.170	7½" V	457	401	358	1355	1045	829
LE	44 Rem Mag	225 gr. FTX	92782	14.58	0.145	7½" V	430	371	330	1347	1005	796
C	44 Rem Mag	240 gr. XTP	9085	15.55	0.205	7½" V	411	372	341	1317	1074	904
C	44 Rem Mag	300 gr. XTP	9088	19.44	0.245	7½" V	351	328	311	1195	1048	942
C	45 Auto	185 gr. XTP	9090	11.99	0.139	5"	296	276	260	524	457	406
CD	45 Auto	185 gr. FTX	90900	11.99	0.140	3"	274	259	245	451	401	360
S	45 Auto	185 gr. HAP	90982	11.99	0.140	3"	274	259	245	451	401	360
C	45 Auto	200 gr. XTP	9112	12.96	0.151	5"	274	260	247	488	437	395
T	45 Auto +P	200 gr. TAP-FPD	91128	12.96	0.151	5"	322	297	279	670	572	504
C	45 Auto +P	200 gr. XTP	9113	12.96	0.151	5"	322	297	279	670	572	504
DUTY	45 Auto +P	220 gr. FlexLock	90926	14.26	0.180	5"	297	281	268	630	564	513
C	45 Auto +P	230 gr. XTP	9096	14.90	0.188	5"	290	276	264	625	566	518
C	45 Auto	230 gr. FMJ RN ENC	9097	14.90	0.188	5"	259	249	239	500	461	426
T	45 Auto +P	230 gr. TAP-FPD	90958	14.90	0.188	5"	290	276	264	625	566	518
S	45 ACP	230 gr. HAP	90985	14.90	0.188	5"	259	249	239	500	461	426
CD	45 Colt	185 gr. FTX	92790	11.99	0.140	3" V	280	264	250	471	417	374
C	45 Colt	255 gr. Cowboy	9115	16.52	0.117	4¾" V	221	208	197	404	358	320
LE	45 Colt	225 gr. FTX	92792	14.58	0.140	4¾" V	293	274	258	624	546	487
C	454 Casull	240 gr. XTP MAG	9148	15.55	0.160	7½" V	579	505	440	2609	1983	1509
C	454 Casull	300 gr. XTP MAG	9150	19.44	0.180	7½" V	503	444	394	2459	1918	1511
LE	460 S&W	200 gr. FTX	9152	12.96	0.151	8¾" V	671	584	507	2914	2212	1665
C	475 Linebaugh	400 gr. XTP MAG	9140	25.92	0.182	7½" V	396	355	326	2035	1636	1376
C	480 Ruger	325 gr. XTP MAG	9138	21.06	0.150	7½" V	411	359	323	1783z	1358	1100
C	480 Ruger	400 gr. XTP MAG	9144	25.92	0.182	7½" V	335	311	293	1457	1253	1112
C	50 AE	300 gr. XTP/HP	9245	19.44	0.120	6"	450	376	326	1965	1372	1036
LE	500 S&W	300 gr. FTX	9249	19.44	0.120	8¾" V	594	495	413	3435	2385	1658
C	500 S&W	350 gr. XTP MAG	9250	22.68	0.145	8¾" V	518	444	384	3045	2238	1669
C	500 S&W	500 gr. FP-XTP	9252	32.40	0.185	8¾" V	396	356	327	2544	2052	1728

# Shotgun/Muzzleloader Ballistics.....

## Shotgun Ammunition

Ammo Description			Velocity (m/sec)					Energy (joules)					Trajectory Tables (cm)				
AMMO DESCRIPTION	WEIGHT	ITEM #	MUZZLE	50 m	100 m	150 m	200 m	MUZZLE	50 m	100 m	150 m	200 m	MUZZLE	50 m	100 m	150 m	200 m
20 ga. SST Shotgun Slug	16.20	86232	549	491	440	395	357	2439	1955	1570	1262	1035	-4.0	8.5	10.6	0	-26.5
20 ga. Superformance Shotgun Slug	16.20	86237	549	491	440	395	357	2439	1955	1570	1262	1035	-4.0	8.5	10.6	0	-26.5
12 ga. SST Shotgun Slug	19.44	8623	610	547	491	439	394	3613	2914	2347	1877	1510	-4.0	6.3	8.3	0	-21.1
12 ga. Superformance Shotgun Slug	19.44	86236	594	525	463	408	363	3435	2679	2088	1621	1283	-4.0	7.2	9.4	0	-24.2
12 ga. SST Lite Shotgun Slug	19.44	86230	480	429	386	351	324	2241	1792	1450	1196	1023	-4.0	11.8	14.2	0	-34.2

AMMO DESCRIPTION	SHELL LENGTH	ITEM #	MUZZLE	AMMO DESCRIPTION	SHELL LENGTH	ITEM #	MUZZLE
12 Gauge #4 Buck	2¾"	86243	411	12 Gauge Heavy Mag #4 Turkey (1½ oz)	3"	86242	396
12 Gauge Critical Defense 00 Buck (8 Pellets)	2¾"	86240	488	12 Gauge Heavy Mag #5 Turkey (1½ oz)	3"	86241	396
12 Gauge Superformance 00 Buck (8 Pellets)	2¾"	86246	488	12 Gauge Heavy Mag #6 Turkey (1½ oz)	3"	86244	396
12 Gauge TAP-FPD 00 Buck (8 Pellets)	2¾"	86276	488				

12 gauge shotgun ballistics are established with a 30" SAAMI standard test barrel.

20 gauge shotgun ballistics are established with a 26" SAAMI standard test barrel.

## Muzzleloader Projectiles

Description			Velocity (m/sec)					Energy (joules)					Trajectory Tables (cm)							
DESCRIPTION	WEIGHT	ITEM #	MUZ	50 m	100 m	150 m	200 m	250 m	MUZ	50 m	100 m	150 m	200 m	250 m	MUZ	50 m	100 m	150 m	200 m	250 m
45 Cal. SST-ML Low Drag Sabot	12.96	67132	709	657	608	561	517	475	3255	2797	2400	2043	1732	1464	-4.0	6.6	11.4	9.7	0	-19.0
50 Cal. SST-ML Lock-N-Load Speed Sabot	16.20	67270	686	622	563	507	456	411	3811	3136	2571	2086	1687	1367	-4.0	8.1	13.8	11.7	0	-23.7
50 Cal. SST-ML Low Drag Sabot	16.20	67273	686	622	563	507	456	411	3811	3136	2571	2086	1687	1367	-4.0	8.1	13.8	11.7	0	-23.7
50 Cal. MonoFlex Lock-N-Load Speed Sabot	16.20	67269	686	622	563	507	456	411	3811	3136	2571	2086	1687	1367	-4.0	8.1	13.8	11.7	0	-23.7
50 Cal. MonoFlex High Speed Low Drag Sabot	16.20	67274	686	622	563	507	456	411	3811	3136	2571	2086	1687	1367	-4.0	8.1	13.8	11.7	0	-23.7
50 Cal. SST-ML Lock-N-Load Speed Sabot	19.44	67271	649	597	549	503	460	421	4098	3467	2929	2456	2054	1720	-4.0	8.8	14.5	12.1	0	-24.1
50 Cal. SST-ML Low Drag Sabot	19.44	67263	649	597	549	503	460	421	4098	3467	2929	2456	2054	1720	-4.0	8.8	14.5	12.1	0	-24.1
50 Cal. FPB (150 gr. charge)	19.44	6605	640	587	539	492	449	411	3983	3355	2821	2356	1963	1639	-4.0	9.2	15.1	12.7	0	-25.2
50 Cal. FPB (100 gr. charge)	19.44	6605	549	501	458	419	384	355	2926	2444	2044	1705	1433	1223	-4.0	13.8	21.6	17.9	0	-34.9
50 Cal. FPB (150 gr. charge)	22.68	6600	594	551	511	473	437	405	4007	3444	2960	2532	2165	1857	-4.0	10.6	17.0	14.0	0	-27.2
50 Cal. FPB (100 gr. charge)	22.68	6600	494	456	423	392	365	343	2766	2363	2028	1743	1514	1335	-4.0	16.9	25.7	20.9	0	-39.6

### LEGEND

- |                                   |   |   |                                     |  |
|-----------------------------------|---|---|-------------------------------------|--|
| BT..... Boattail                  | FP..... Flat Point                        | HP..... Hollow Point                          | RN..... Round Nose                  | SST..... Super Shock Tipped            |
| DGS..... Dangerous Game Solid     | FPB..... Flex Tip® Projectile Blackpowder | IB..... InterBond® Bullet                     | SIL..... Silhouette                 | V..... Vented                          |
| DGX..... Dangerous Game Expanding | FTX..... Flex Tip® eXpanding              | L..... Swaged Lead Bullet                     | SJ..... Short Jacket                | XTP..... Extreme Terminal Performance™ |
| FMJ..... Full Metal Jacket        | GMX..... Gilding Metal Expanding          | LRN..... Lead Round Nose                      | SP..... Spire Point                 |  |
|                                   |   | ML..... Muzzleloading w/Moly..... Moly-Coated | SP-RP..... Spire Point Recoil Proof |  |

## Lock-N-Load® Case Feeder Plates

These case feeder plates are used with the Lock-N-Load® Case Feeder featured on page 62. Refer to the chart to choose the proper size for your application.



**Small Pistol Plate**  
No. 095310 \$37.44



**Small Rifle Plate**  
No. 095314 \$37.44



**Large Pistol Plate**  
No. 095312 \$37.44



**Large Rifle Plate**  
No. 095316 \$37.44

Small Pistol Plate	Large Pistol Plate	Small Rifle Plate	Large Rifle Plate			
9MM	10MM Auto	17 Hornet	6MM Rem.	.284 Win.	.356 Win.	.300 RCM
9 x 21	.357 Mag.	7.62 x 39	6.5MM Rem. Mag.	.30 Rem.	.358 Win.	.300 Rem. Saum
.38 Super	.357 Rem. Max.	.17 Rem.	6.5 x 55 Swedish Mauser	.30-06 Springfield	.375 H&H Mag.	.300 WSM
9 x 18 Makarov	.38 Long Colt	.218 Bee	7MM Mauser (7 x 57)	.30-30 Win.	.375 Win.	.300 Dakota
9MM Win Mag.	.38 Short Colt	204 Ruger	7MM Rem. Mag.	.30-40 Krag	.38-55 Win.	30 T/C
.30 Luger	.38 S&W	.22 Hornet	7MM WBY Mag.	.300 H&H Mag.	.416 Rem. Mag.	.300 Rem. Ultra Mag.
32 ACP	.38 Spl.	.222 Rem./Rem. Mag.	7MM-08 Rem.	.300 Savage	.416 Rigby	.338 RCM
32 H&R Mag	.41 Rem. Mag.	.223 Rem. (5.56MM)	7-30 Waters	.300 WBY Mag.	.444 Marlin	.338 Win. Mag.
.32 Long Colt	.44 Spl/Mag.	6.5 Grendel	8MM Mauser (8 x 57)	.300 Win. Mag.	45-70 Govt.	.338 Rem. Ultra Mag.
.32 Short Colt	.45 ACP	.30 Carbine	8MM Rem. Mag.	.303 British	.458 Win. Mag.	.340 WBY Mag.
.32 S&W	.45 Auto Rim.	300 Whisper	.22-250	.303 Savage	.458 Lott	.375 Ruger
.32 S&W Long	.45 Colt	.32-20 Win	.220 Swift	.307 Win.	.450 Marlin	.378 WBY Mag.
.380 Auto	.45 Win. Mag.	.351 Win. Self Loading	.225 Win.	.308 Win.	.376 Steyr	.404 Jeffery
.40 S&W	.454 Casull	.25-20 Win.	.243 Win.	.32 Rem.	.405 Win.	.460 S&W
	9 x 25		.25-06	.32 Win. Spl.	.240 WBY Mag.	.460 WBY Mag.
	.22 Rem. Jet		.25-35 Win.	.32-40 Win.	.257 WBY Mag.	50 AE
	.256 Win. Mag.		.250 Savage	.338 Win. Mag.	.270 WBY Mag.	500 S&W
	.475 Linebaugh		.257 Roberts	.348 Win.	.270 WSM	
	.480 Ruger		.264 Win. Mag.	.35 Rem.	7MM Rem. Saum	
	.38-40 Win.		.270 Win.	.35 Whelen	7MM STW	
	.44-40 Win.		.280 Rem.	.350 Rem.	7MM Rem. Ultra Mag.	