



\*A 1:9" or faster twist is recommended for the 175-grain TSX.

\*SAAMI specifies a maximum overall length (COAL) for this cartridge at 2.800"; Barnes load data was developed at this COAL. This cartridge may be loaded to a slightly longer length if your rifle's magazine and throat are long enough to accommodate the extra length.

\*If loading to 2.800" COAL, lightly crimp case mouth so it contacts the bullet ogive.

◆ Indicates most accurate load

**.284 Winchester**

<b>Bullet Weight:</b> 120 gr	<b>Case Trim Length:</b> 2.160"	<b>S.D.</b>	0.213
<b>Bullet Style:</b> TSX BT	<b>Primer:</b> Fed GM210M	<b>B.C.</b>	0.349
<b>COAL:</b> 2.800"	<b>Barrel Length:</b> 24"		
<b>Case:</b> W-W	<b>Twist Rate:</b> 1:10"		

Powder	Minimum		Maximum		
	Charge (grains)	Velocity (fps)	Charge (grains)	Velocity (fps)	Load Density (%)
IMR 4895	47.5	2896	50.0	3075	91
Varget	48.0	2919	51.0	3111	92
IMR 4064	48.0	2922	50.5	3102	96
IMR 4320	48.0	2858	51.0	3042	90
AA 2700	54.5	2949	58.0	3132	96
Big Game	52.5	2942	57.0	3157	100
RL 15	47.5	2894	50.5	3111	92
H380	51.0	2883	55.5	3107	94
Win 760	52.5	2943	56.5	3145	93
◆ H414	53.0	2961	57.0	3165	94

<b>Bullet Weight:</b> 140 gr	<b>Case Trim Length:</b> 2.160"	<b>S.D.</b>	0.248
<b>Bullet Style:</b> Banded Spitzer Solid	<b>Primer:</b> Fed GM210M	<b>B.C.</b>	0.464
<b>COAL:</b> 2.800"	<b>Barrel Length:</b> 24"		
<b>Case:</b> W-W	<b>Twist Rate:</b> 1:10"		

<b>Bullet Weight:</b> 140 gr	<b>Case Trim Length:</b> 2.160"	<b>S.D.</b>	0.248
<b>Bullet Style:</b> TSX BT	<b>Primer:</b> Fed GM210M	<b>B.C.</b>	0.394
<b>COAL:</b> 2.800"	<b>Barrel Length:</b> 24"		
<b>Case:</b> W-W	<b>Twist Rate:</b> 1:10"		

<b>Bullet Weight:</b> 140 gr	<b>Case Trim Length:</b> 2.160"	<b>S.D.</b>	0.248
<b>Bullet Style:</b> MRX BT	<b>Primer:</b> Fed GM210M	<b>B.C.</b>	0.406
<b>COAL:</b> 2.800"	<b>Barrel Length:</b> 24"		
<b>Case:</b> W-W	<b>Twist Rate:</b> 1:10"		

Powder	Minimum		Maximum		
	Charge (grains)	Velocity (fps)	Charge (grains)	Velocity (fps)	Load Density (%)
IMR 4895	44.5	2601	48.0	2820	91
Varget	45.0	2649	48.0	2815	91
IMR 4064	45.0	2639	48.5	2827	96
IMR 4320	46.0	2608	49.0	2797	90
AA 2700	51.5	2678	56.0	2885	97
Big Game	49.5	2653	55.0	2899	101
RL 15	43.5	2588	48.5	2826	92
H380	49.5	2658	53.0	2851	94
Win 760	50.0	2716	54.0	2894	93
◆ H414	50.0	2702	54.0	2889	93

## .284 Winchester

Bullet Weight: 150 gr  
Bullet Style: TSX BT  
COAL: 2.800"  
Case: W-W

Case Trim Length: 2.160"  
Primer: Fed GM210M  
Barrel Length: 24"  
Twist Rate: 1:10"

S.D. 0.266  
B.C. 0.408

Powder	Minimum		Maximum		
	Charge (grains)	Velocity (fps)	Charge (grains)	Velocity (fps)	Load Density (%)
Varget	42.5	2471	46.5	2668	90
IMR 4064	43.0	2487	46.5	2675	94
IMR 4320	44.0	2451	47.5	2674	90
♦ AA 2700	49.0	2534	53.0	2722	94
Big Game	47.0	2492	53.0	2752	99
RL 15	42.0	2453	47.0	2702	91
H380	47.5	2545	51.0	2720	93
Win 760	48.0	2568	52.5	2770	92
H414	48.0	2556	52.5	2758	92
H4350	48.5	2557	52.5	2768	100

Bullet Weight: 160 gr  
Bullet Style: TSX FB  
COAL: 2.800"  
Case: W-W

Case Trim Length: 2.160"  
Primer: Fed GM210M  
Barrel Length: 24"  
Twist Rate: 1:10"

S.D. 0.283  
B.C. 0.392

Bullet Weight: 160 gr  
Bullet Style: MRX BT  
COAL: 2.800"  
Case: W-W

Case Trim Length: 2.160"  
Primer: Fed GM210M  
Barrel Length: 24"  
Twist Rate: 1:10"

S.D. 0.283  
B.C. 0.439

Powder	Minimum		Maximum		
	Charge (grains)	Velocity (fps)	Charge (grains)	Velocity (fps)	Load Density (%)
IMR 4064	41.0	2340	44.0	2500	91
IMR 4320	42.0	2307	46.0	2507	89
AA 2700	49.0	2389	52.5	2593	95
♦ Big Game	45.0	2324	51.0	2587	98
RL 15	40.5	2273	45.0	2491	89
H380	45.0	2349	49.0	2550	91
Win 760	46.0	2341	51.0	2613	91
H414	45.0	2371	50.0	2608	90
H4350	46.0	2431	51.0	2623	99
Hunter	51.5	2464	56.0	2697	103

Bullet Weight: 175 gr  
Bullet Style: TSX FB  
COAL: 2.800"  
Case: W-W

Case Trim Length: 2.160"  
Primer: Fed GM210M  
Barrel Length: 24"  
Twist Rate: 1:10"

S.D. 0.310  
B.C. 0.417

Powder	Minimum		Maximum		
	Charge (grains)	Velocity (fps)	Charge (grains)	Velocity (fps)	Load Density (%)
Big Game	44.0	2226	49.0	2453	97
RL 15	39.0	2150	43.5	2348	89
H380	42.0	2172	47.5	2430	91
Win 760	43.0	2267	49.5	2490	92
H414	43.0	2276	48.0	2469	89
IMR 4350	46.0	2274	50.0	2474	104
H4350	43.0	2202	47.5	2410	95
Hunter	49.0	2322	52.5	2499	100
♦ IMR 4831	47.0	2276	50.5	2454	105
H4831SC	48.5	2241	52.0	2404	104