

25 NAA Exterior and Wound Ballistics

In May 2001, I tested a prototype cartridge identified as the 25/32 JBW. In November 2001, I tested an upgraded, pre-production version of the same cartridge, now referred to as the 25/32 NAA. In December 2003, I tested the production released version, now identified as the 25 NAA.

Velocity:

25/32 JBW	971 fps
25/32 NAA	1080 fps
25 NAA	1275 fps

Energy:

25/32 JBW	73 ft-lb
25/32 NAA	91 ft-lb
25 NAA	126 ft-lb

Gelatin Penetration (bare):

25/32 JBW	5.8 inch
25/32 NAA	6.5 inch
25 NAA	6.0 inch

Gelatin Penetration (heavy clothes):

25 NAA	10.0 inch
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Bullet Expansion (gelatin):

25/32 JBW	.38 inch
25/32 NAA	.43 inch
25 NAA	.40 inch

Bullet Expansion (gelatin after heavy clothes):

25 NAA	.36 inch
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One Shot Stop (Fuller Index):

25/32 JBW	28%
25/32 NAA	33%
25 NAA	40%

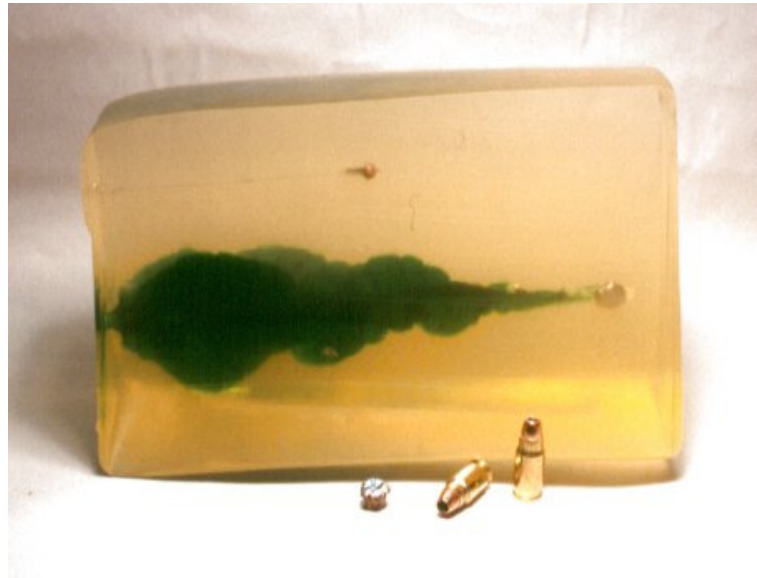
In every regard, the 25 NAA as released for production is superior to the earlier prototypes and pre-production cartridges. The 7 to 12 percentage point differences in the Fuller Index are extremely significant.

The 25 NAA also compares well to the two closest competitors, the 25 ACP and the 32 ACP.

Velocity / Energy:

25 NAA 35 gr Horn XTP	1275fps / 126 ft-lb
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25 ACP CCI 35 gr Gold Dot	830 / 54
25 ACP Horn 35 gr XTP	825 / 53
25 ACP Win 45 gr Exp Pt	815 / 66
25 ACP (average)	823 fps / 58 ft-lb



32 ACP CCI 60 gr Gold Dot 827 / 91
32 ACP Fed 65 gr Hydra-S 827 / 99
32 ACP Horn 60 gr XTP 883 / 104
32 ACP Win 60 gr Silvertip 950 / 120
32 ACP (average) 872 fps / 104 ft-lb

On the average, the 25 NAA has 50% more velocity and twice the energy of the 25 ACP hollowpoints. The 25 NAA has 50% more velocity and 20% more energy than even the 32 ACP hollowpoints.

Expansion / Penetration:

25 NAA 35 gr Horn XTP .40 inch / 6.0 inch

25 ACP CCI 35 gr Gold Dot .30 / 8.4
25 ACP Horn 35 gr XTP .35 / 6.0
25 ACP Win 45 gr Exp Pt .43 / 6.3
25 ACP (average) .36 inch / 6.9 inch

32 ACP CCI 60 gr Gold Dot .50 / 8.3
32 ACP Fed 65 gr H-Shok .47 / 7.9
32 ACP Horn 60 gr XTP .39 / 10.0
32 ACP Win 60 gr Silvertip .55 / 6.2
32 ACP (average) .48 inch / 8.1 inch

On the average, the 25 NAA expands slightly more and penetrates slightly less than the 25 ACP hollowpoints using the same diameter bullet. The 25 NAA, using a smaller caliber bullet than the 32 ACP, has a smaller recovered diameter and produces less penetration than the 32 ACP hollowpoints.

The 6-inch gelatin penetration distance for the 25 NAA 35 grain XTP will cause concern with the average gunwriter reviewing the new caliber. Three points may help mitigate the issue.

First, the top load in both the 25 ACP caliber (Win 45 gr. Exp Pt) and the 32 ACP caliber (Win 60 gr. STHP) both produce a similar penetration, i.e., 6.3 and 6.2 inches, respectively.

Second, the Fuller Index accounts for this in the calculation. Note, however, that the Fuller Index for the 25 NAA would only increase from 40% to 41% if the penetration increased to the optimum 8.4 inches. And the Fuller Index would stay at 41% even if the penetration was increased to 10 inches.

Third, and of critical importance, the 25 NAA produces 10-inches of penetration in the Heavy Clothes test, still expanding to .36 caliber. The Heavy Clothes test used 4-layers of denim, the harshest of the heavy clothes protocols. The average gunwriter will actually be interested in only the heavy clothes gelatin test. This 10-inch penetration from the 25 NAA easily surpasses the 9-inch minimum for the US Border Patrol.

Felt Recoil (Power Factor):

25 NAA 35 gr Horn XTP 44

25 ACP CCI 35 gr Gold Dot 29
25 ACP Horn 35 gr XTP 29
25 ACP Win 45 gr Exp Pt 37
25 ACP (average) 32

32 ACP CCI 60 gr Gold Dot 50

32 ACP Fed 65 gr Hydra-S 54
32 ACP Horn 60 gr XTP 53
32 ACP Win 60 gr Silvertip 57
32 ACP (average) 54

On the average, the 25 NAA produces 38% more recoil than the 25 ACP and 18% less recoil than the 32 ACP.

Stopping Power (Fuller Index):

25 NAA 35 gr Horn XTP 40% One Shot Stops

25 ACP CCI 35 gr Gold Dot 23%
25 ACP Horn 35 gr XTP 23%
25 ACP Win 45 gr Exp Pt 27%
25 ACP (average) 24% One Shot Stops

32 ACP CCI 60 gr Gold Dot 38%
32 ACP Fed 65 gr Hydra-S 40%
32 ACP Horn 60 gr XTP 41%
32 ACP Win 60 gr Silvertip 45%
32 ACP (average) 41% One Shot Stops

On the average, the 25 NAA has 66% more stopping power than the 25 ACP. No individual 25 ACP load is anywhere close to the 25 NAA 35 grain XTP in effectiveness. On the average, the 25 NAA has the same stopping power as the 32 ACP.