**Date:** 8/10/2024

**Cartridge:** 9mm

**Manufacturer:** Velocitas Bullet Systems

**Weight:** 96gr **Projectile:** Solid Copper **Style:** Hollow Point

**OAL:** 1.085”

**Start Time:** 9:30 am **End Time:** 1:00 pm

**Start Temp:** 65F **End Temp:** 90F

All tests for the VX9 were done in comparison to Federal HST 124 grain ammo.

**Test #1**

5-shot grouping at 25 yards with Glock 45.

**VX9:** 10” Group with flyer four shots were a 3” group

5- 9 Ring

**HST 124:** 12” Group

1- Bullseye Ring

1- 10 Ring

1- 9 Ring

2- 8 Ring

**Test #2**

Speed Test 5 shots on steel targets from draw at 15 yards Glock 45.

**VX9:** 2.55 Seconds with shooter error **HST 124:** 2.93 Seconds

**Test #2**

FBI standard 10-foot gel block test with Shadow Systems 920.

**VX9:** 17” penetration, .539” expansion diameter, 95.6 grains, 0.4 grains weight loss, and 99.6% weight retention

**HST 124:** 14” penetration, .585” expansion diameter, 123.0 grains, 1.0 grains weight loss, and 99.2% weight retention

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**Test #3**

FBI standard 10-foot windshield at 18-degree angle with gel block 18” from windshield test with Shadow Systems 920.

**VX9:** 11.5” penetration, .598” expansion diameter, 95.4 grains, 0.6 grains weight loss, 99.4% weight retention, and collateral damage

**HST 124:** 13” penetration, .584” expansion diameter, 113.2 grains, 10.8 grains weight loss, 91.3% weight retention, and collateral damage passengers

**Test #4**

FBI standard 10-foot drywall and stud with gel block test with Shadow Systems 920.

**VX9:** 10.75” penetration, .205” expansion diameter, no expansion, 97.8 grains, 1.8 grains weight gained, 101.9% weight retention, and no collateral damage

**HST 124:** 14.75” penetration, .584” expansion diameter, no expansion, 124.4 grains, 0.4 grains weight gained, 100.3% weight retention, and minimal collateral damage

**Test #5**

FBI standard 10-foot drywall with gel block test with Shadow Systems 920.

**VX9:** 19.0” penetration, .343” expansion diameter, bullet turned 180 degrees, 95.8 grains, 0.2 grains weight lost, 99.8% weight retention, and no collateral damage

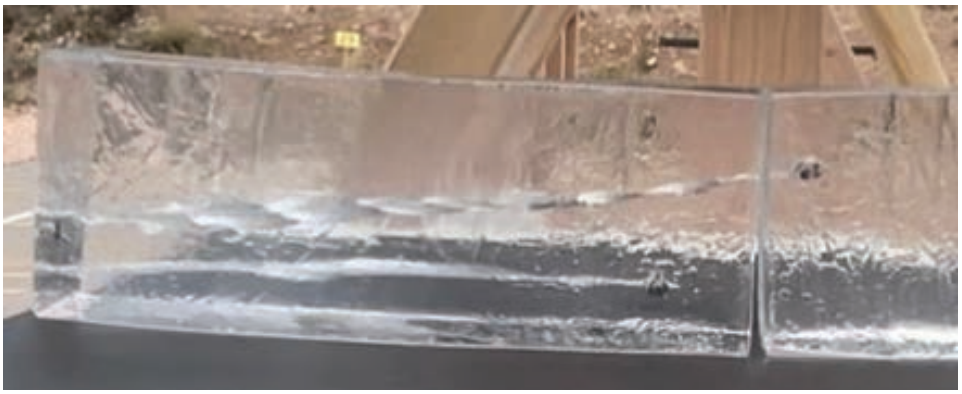
**HST 124:** 18.5” penetration, .602” expansion diameter, 123.0 grains, 1.0 grains weight lost, 81.0% weight retention, and minimal collateral damage

**Test #6**

FBI standard 10-foot jeans with gel block test with Shadow Systems 920.

**VX9:** 13.5” penetration, .512” expansion diameter, 96.0 grains, 0.0 grains weight lost, and 100% weight retention

**HST 124:** 17.0” penetration, .411” expansion diameter, 123.6 grains, 0.4 grains weight lost, and 99.7% weight retention



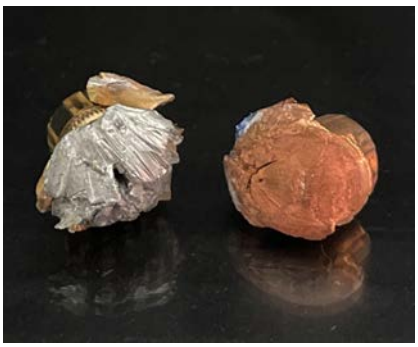
Gel test HST 124 grain vs VX9 96 Grain
Top wound cavity is VX9
Bottom wound cavity is HST 124

Gel test HST 124 grain vs VX9 96 Grain
Left is HST
Right is VX9

Windshield into gel test HST 124 grain vs VX9 96 Grain
Above HST

Windshield into gel test HST 124 grain vs VX9 96 Grain
Above VX9

Windshield into gel test HST 124 grain vs VX9 96 Grain
Left bullet HST



Windshield into gel test HST 124 grain vs VX9 96 Grain
Right bullet HST

Jeans into gel test HST 124 grain vs VX9 96 Grain
Left bullet HST
Right Bullet VX9

VX9 out of carbine going through level 3
safariland soft body armor

**Date:** June 26, 2024

**Cartridge:** 9mm

**Manufacturer:** Velocitas

**Weight:** 96gr **Projectile:** Copper solid **Style:** Hollow Point

**Case overall length:** 1.100”

**Case: Mfr.:**

**Propellant:** **Distributor:** **Charge Wgt.:**

**Primers:** **Manufacturer:**

**Test #1** April 14 & 22 2024

Accuracy, velocity and cycle test. Tested three different lots of loaded rounds with four different pistols.

**Elevation:** 751ft **Temp:** 71’F **Humidity:** 89% **Barometric Pressure:** 30.04mba

**Start Time:** 10:30 AM **Distance:** 15yrds

| *Test Firearm* | *Barrel Length (in.)* | *Avg group size (in.)* | *Avg Velocity (fps)* | *Feed Test* (%)* |
|---|---|---|---|---|
| *SIG P365 Macro* | 3.750” | 2.543” | 1355.2 | 100 |
| *SIG P365 Macro w/Optics* | 3.750” | 3.262” | 1370.5 | 100 |
| *S&W Shield EZ* | 3.500” | 1.717” | 1360.5 | 100 |
| *S&W M&P 2.0* | 5.000” | 1.248” | 1420.6 | 100 |

*Feed Test was rapid fire with magazine change.

**Test #2** April 22, 2024

15’ to ballistic gel block

3 rounds – Full petal expansion in first 5” and 16” penetration.

Bullets expanded to 0.481-0.539” diameter at widest point across petals.

**Observations:** Bullets expanded consistently and at a uniform diameter without petals shearing off of base diameter through multiple tests. When shot through ballistic gel, petals expanded, providing a large wound channel while maintaining a straight trajectory through the gel media. (Pic 1 – bullet expansion, Pic 2- wound channel created, Pic 3- bullet exit through gel media.)


**Expansion:** Velocitas 96 grain solid bullets consistently measured about 0.539 inches after shot through ballistic gel media.

**Conclusion:** The Velocitas 96 grain solid VX9 premier self-defense loaded ammunition was shown to maintain a lower extreme velocity spread through multiple firearms, which showed in the group tests with low vertical and below average horizontal dispersion compared to tested competitor ammunition. Seating depth was consistent, and no feed issues were observed in the firearms tested. Bullet expansion was consistent through testing with no loss of petals or deformation providing a wide wound channel.

**Tester opinion:** Testers found that the tight grouping and accuracy, coupled with the consistent expansion of the bullet design, will make for a solid defense round.


**Target 1:** Rapid fire 5 round groups.

**Distance: 25 yards**

**Weapon: Glock 19**

**Test Ammo:**

**Velocitas** 96-grain solid bullets grouped with minimal vertical and slight horizontal dispersion.

**Remington** 115 Flatnose bullets are grouped with wide horizontal dispersion and are slightly more vertical.


**Target 2:** Rapid fire 5-round group

**Distance: 25 yards**

**Weapon: Glock 19***

**Test Ammo:**

**Velocitas** 96-grain solid bullets grouped with slight horizontal and vertical dispersion.

**Blazer** 115-grain bullets grouped with large horizontal dispersion and moderate vertical.

Cartridge: 9mm Date: 07 Sept 23

File Name: 9mm95HPVELOC07SEP232

Firearm: Mount

Action: Bolt

Projectile: Mfr.: Velocitas Wgt: 95gr Style: HP OAL: 1.080”

Case: Mfr.: Jagemann (Ammo Inc)

Propellant: Mfr.: VihtVuori Name: N330

Shooting Location: Shooting Trailer

Elevation: 3856

Starting Time: 1045 Temp: 90F Humidity: 24% BaroPress: 30.09 Wind: 0

Charge Wgt: 5.3gr

| | | | | |
|---|---|---|---|---|
| Velocity: | No Cap | Avg: 1244fps | Pressure: 34375 | Avg: 34233 |
| | 1257 | SD: 14 | 35225 | SD: 1114 |
| | No Cap | ES: 27 | 32925 | ES: 2625 |
| | 1255 | | 35525 | |
| | 1230 | | 32900 | |
| | 1234 | | 34450 | |

Notes: No Cap=System did not capture velocity.

Test#1 07 Sept 2023
Windshield: Distance 20’, 30-degree angle, 14” penetration into gelatin located 10” behind glass, no deflection
Door: 20’, 16” penetration into gelatin located 10” behind glass, no deflection

Test #2 27 Oct 2023
10’ to test media, gelatin located 14” behind media

Metal Door – Minor tip deformation
4 rounds – 23.5” penetration
1 round – 21” penetration

Windshield 30-degree angle – Partial expansion, no deflection
1 round – 12.5” penetration
1 round – 15.5” penetration

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