

= 5 @. @ 53 mm , Ø grooves =

5 @. @ 62 mm , land width = 1 @. @ 63 mm and the recommended primer type is small rifle .

According to the official Commission Internationale Permanente pour l'Epreuve des Armes à Feu Portatives ( CIP ) guidelines the 5 @. @ 7 × 28mm case can handle up to 345 MPa ( 50 @, @ 037 psi ) piezo pressure . In CIP @-@ regulated countries every rifle cartridge combination has to be proofed at 125 % of this maximum CIP pressure to certify for sale to consumers .

= = Cartridge types = =

#### SS90 prototype

The SS90 was an early prototype round used only in the earliest examples of the P90 . It used a lightweight 1 @. @ 5 @-@ g ( 23 grain ) full metal jacket bullet with a polymer core , which it propelled at a muzzle velocity of roughly 850 m / s ( 2 @, @ 800 ft / s ) . The SS90 was abandoned in 1994 in favor of the heavier and 2 @. @ 7 @-@ mm ( 0 @. @ 11 in ) shorter SS190 projectile .

#### SS190 duty

The SS190 FMJ , a refinement of the SS90 , was introduced in 1993 . It offered superior performance over the prototype projectile as well as slightly reduced length . The latter change allowed it to be used more conveniently in the Five @-@ seven pistol , also being developed at that time . Fired from the P90 , the SS190 propels a 2 @. @ 0 @-@ g ( 31 grain ) bullet at a muzzle velocity of roughly 715 m / s ( 2 @, @ 350 ft / s ) . It has a steel penetrator and an aluminum core . The SS190 has been manufactured with a plain , black , and a black @-@ on @-@ white tip color . It is classified by the ATF as armor @-@ piercing ( AP ) handgun ammunition , and its sale is currently restricted by FN to military and law enforcement customers .

In testing done by Houston Police Department SWAT , the SS190 fired from the P90 into bare ballistic gelatin exhibited penetration depths ranging from 28 to 34 cm ( 11 to 13 @. @ 5 in ) . In testing in 1999 by the Royal Canadian Mounted Police ( RCMP ) , the SS190 fired from the P90 at a distance of 25 m ( 27 yd ) exhibited an average penetration depth of 25 cm ( 9 @. @ 85 in ) in ballistic gelatin after passing through a Level II Kevlar vest .

#### L191 tracer

The L191 ( also formerly called the SS191 ) is a tracer cartridge designed for easier bullet spotting in dim light . Combustible chemicals packed in the rear of the L191 projectile create a light trail visible up to 200 m ( 219 yd ) . The L191 has been manufactured with red and red @-@ on @-@ black tips . The performance and trajectory of the L191 is identical to the SS190 . For this reason , it is also classified by the ATF as armor @-@ piercing handgun ammunition , and its sale is currently restricted by FN to military and law enforcement customers .

#### SS192 hollow @-@ point

The SS192 was discontinued in late 2004 . It used a 1 @. @ 8 g ( 28 grain ) hollow point bullet with a copper jacket and an aluminum core . The projectile had a length of 21 @. @ 6 mm ( .85 in ) . It had an unmarked hollow nose with a depth of 7 @. @ 6 mm ( 0 @. @ 3 in ) and a 0 @. @ 8 @-@ mm ( 0 @. @ 03 in ) opening . The SS192 was classified by the ATF as not armor @-@ piercing , and in testing by FNH USA it did not penetrate a Level IIIA vest when fired from the Five @-@ seven .

#### SB193 subsonic

The SB193 ( also formerly called the SS193 ) is a speed subsonic cartridge featuring a 3 @. @ 6 @-@ g ( 55 grain ) Sierra Game King FMJBT ( FMJ boat tail ) projectile . The SB193 's low muzzle velocity eliminates the distinctive " crack " created by supersonic rounds , and when used in conjunction with a sound suppressor , the muzzle report is also reduced . Due to the greatly decreased muzzle velocity , the SB193 benefits from a slightly reduced recoil force of 1 @. @ 3 kgm / s . The SB193 can be identified by its white tip color . Its sale is currently restricted by FN to military and law enforcement customers .

#### T194 training

The T194 training round was discontinued in 2002 . It could be considered an early version of the SS192 or SS195 . It used the same 1 @. @ 8 @-@ g ( 28 grain ) copper @-@ jacketed aluminum

core bullet , propelled at the same muzzle velocity . It had a green tip .

#### SS195LF ( lead free )

The SS195LF is a commercially available cartridge that features a lead @-@ free primer and produces ballistics similar to the SS192 round , which it replaced in late 2004 . It uses the same 1 @. @ 8 @-@ g ( 28 grain ) copper @-@ jacketed aluminum core bullet as the SS192 , and it can be identified by the unmarked , hollow void at the tip and the silver @-@ colored primer . The SS195 is classified by the ATF as not armor @-@ piercing , and it is currently manufactured by FN Herstal in Belgium .

#### SS196SR ( sporting round )

The SS196SR was introduced in 2005 and it is now discontinued in favor of the SS197SR cartridge . It featured a lead core 2 @. @ 6 @-@ g ( 40 grain ) Hornady V @-@ Max bullet which it propelled at a muzzle velocity of roughly 500 m / s ( 1 @, @ 650 ft / s ) when fired from the Five @-@ seven . The polycarbonate tip used in the V @-@ Max bullet acted as a wedge , enhancing expansion of the bullet . The SS196 was classified by the ATF as not armor @-@ piercing , and in testing by FNH USA it did not penetrate a Level II vest when fired from the Five @-@ seven . The SS196 could be identified by its red polymer tip .

#### SS197SR ( sporting round )

The SS197SR is currently offered to civilian shooters in addition to the SS195LF . It uses the same lead core 2 @. @ 6 @-@ g ( 40 grain ) Hornady V @-@ Max projectile as the SS196SR , but it is loaded for a muzzle velocity roughly 30 @-@ m / s ( 100 ft / s ) higher . The projectile has a blue @-@ colored polymer tip instead of the red color used in the SS196 projectile tip . The SS197 has been manufactured by Fiocchi , under contract for FN Herstal , since 2006 and it is distributed in the United States by Federal Cartridge Company .

#### SS198LF ( lead free )

The SS198LF uses the same lead @-@ free projectile and primer as the SS195LF , but propels it at roughly a 30 @-@ m / s ( 100 ft / s ) higher muzzle velocity . It has a green painted tip , and its sale is currently restricted by FN to military and law enforcement customers .

#### American Eagle ( AE5728A ) TMJ

Since 2012 , Federal Cartridge Company produces a 5 @. @ 7 × 28mm round under their American Eagle brand . Designated the AE5728A , this cartridge uses a 40 @-@ grain total metal jacket ( TMJ ) projectile , that is atypical in that it does not use a copper plated bullet ; sectioned pictures show a very thick full copper jacket . The AE5728A casings are of FN manufacture , and the muzzle velocity is slightly lower than that of the SS197SR .

#### Non @-@ FN ammunition

Elite Ammunition manufactures a wide variety of reloaded 5 @. @ 7 × 28mm ammunition offerings . Belgian ammunition manufacturer VBR @-@ Belgium has also developed specialized 5 @. @ 7 × 28mm projectiles designed for armor penetration and controlled fragmentation .

Handloading is possible with 5 @. @ 7 × 28mm ammunition , and 5 @. @ 7 @-@ mm ( .224 in ) bullets are widely available due to use in .223 Remington and 5 @. @ 56 × 45mm NATO cartridges . Handloaders have noted that the 5 @. @ 7 × 28mm cartridge is very sensitive to small changes in powder charge or overall length ( OAL ) with a bullet inserted . Bullets weighing 2 @. @ 6 g ( 40 grains ) or less are recommended for optimal use in 5 @. @ 7 × 28mm applications , but the 1 : 231 mm ( 1 : 9 @. @ 1 in ) rifling twist rate ( distance the bullet must travel to complete one full revolution ) used in the firearms ' barrels will stabilize bullets weighing up to 4 @. @ 5 g ( 70 grains ) .

= = Specifications = =

Fired from the longer 40 @. @ 74 cm ( 16 @. @ 04 in ) barrel of the PS90 , the muzzle velocity of SS195LF is roughly 60 m / s ( 200 ft / s ) faster , and the muzzle velocity of SS197SR is roughly 45 m / s ( 150 ft / s ) faster . Fired from the shorter 12 @. @ 2 cm ( 4 @. @ 8 in ) barrel of the Five @-@ seven pistol , the muzzle velocity of SS195LF is roughly 90 m / s ( 300 ft / s ) slower , and the muzzle velocity of SS197SR is roughly 60 m / s ( 200 ft / s ) slower .