

# Will It Work on My Handgun?

## 9mm Handguns & PCCs LIKELY to Cycle With a Boosterless FIBONACCI

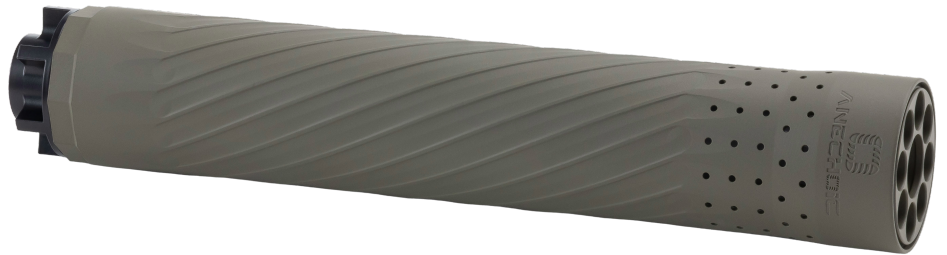
- **Fixed-Barrel Handguns (100% Reliable):** Laugo Alien, HK P7 series, Walther CCP, Steyr GB, Bond Arms Bullpup 9, HK P9S, Korth PRS, Korriphila HSP 701, Benelli B76/B80, Rideout Arsenal Dragon, Hi-Point C9/YCF9, HK VP70/VP70Z, Astra 600, Intratec TEC-9/AB-10/KG-99, MPA30/930 series, Cobray M11/9, B&T Station SIX-9, Welrod Mk II, Altor 9mm, Trailblazer LifeCard
- **Fixed-Barrel PCCs/Subguns (100% Reliable):** CZ Scorpion EVO 3, HK MP5/SP5, B&T APC9/GHM9, Ruger PC Charger, SIG Sauer MPX.
- **Non-Tilting/Rotating/Falling Barrel (Reliable):** Beretta 92/M9/M9A/92X series, Grand Power K100/X-Calibur, and Glock 42 .380 ACP
- **Tilting Barrel Full-Size (Moderately Reliable):** Long barrelled full-size Glock 17, 19X V, 48, SIG Sauer P365/P365 XL (These work best with the lightest suppressors < 3oz and hot, heavy 124gr+ +P ammo and a well cleaned and oiled gun. Avoid adding heavy red dots and other mass to the slide)

## 9mm Handguns LESS LIKELY to Cycle With a Boosterless FIBONACCI

- These work best with the lightest suppressors < 3oz and hot, heavy 124gr+ +P ammo and a well cleaned and oiled gun. Avoid adding heavy red dots and other mass to the slide. Lowering the recoil spring weight (e.g., dropping 2-3 lbs on a Glock guide rod) often restores 100% cycling without needing a booster.
- **Tilting Barrel Compact (Mixed Reliability):** Compact Glock 19, 45, 34
  - **Tilting Barrel Slim Compact (Really Finicky):** Slimline Glock 43, 43X

## 9mm Handguns NOT LIKELY to Cycle With a Boosterless FIBONACCI

- These probably won't cycle well at all, but if you're gonna try, at least use the lightest suppressors <2.5oz and hot, heavy 124gr+ +P ammo and a well cleaned and oiled gun. Avoid adding heavy red dots and other mass to the slide. Lowering the recoil spring weight (e.g., dropping 2-3 lbs on a Glock guide rod) may restore reasonable cycling without needing a booster. ]
- **Standard Tilting-Barrel Small-Frames:** Glock 26, 43, 43X, SIG Sauer P320 / P226 / P229, Smith & Wesson M&P9 / M2.0 Series, CZ P-10 C / CZ 75 Series, Walther PDP / PPQ / Q5 Match, Springfield Armory Echelon / Hellcat Pro, 1911 / 2011 9mm variants (tilting barrels)



## Key Factors for Boosterless Cycling

- **Added Mass:** If you are running a direct-thread silencer with no booster, avoid adding heavy closed-emitter red dots to your slide. The combination of added muzzle weight and added slide weight will easily cause the pistol to short-stroke. Stick to micro red dots or standard iron sights. For most Glocks and standard Browning-action tilting barrel handguns to cycle without a Nielsen device, the total added weight on the muzzle generally must stay under 2 to 4 ounces.
- **Ammunition Selection:** Higher pressure/heavier grain ammo (147gr, 135gr, 124gr +P) delivers higher energy to overcome barrel mass compared to 'range ammo' or 115gr.
- **Tuning the Spring:** Swapping to a lighter aftermarket recoil spring in polymer handguns generally helps resolve cycling issues.
- **Keep it Clean and working right:** it should be obvious, but if it doesn't cycle well without anything added on the muzzle, it sure won't improve to add more weight!

## Mechanical Explanation - The Physics!

A microlight suppressor without a Nielsen device operates reliably on guns with fixed or non-tilting barrels. The barrel remains stationary during firing and does not need to move to unlock the slide, or has only a small linear movement, so uncoupling the suppressor to let the barrel move is not needed. Conversely, on standard tilting-barrel pistols, adding mass directly to the muzzle 'weighs down' and resists the barrel's tilting/thrusting motion. Without a spring-loaded Nielsen device (booster) to temporarily uncouple the suppressor's mass during recoil the slide fails to complete its full cycle resulting in malfunctions like stovepipes or failures to eject.