CAT/BEN/MANUAL

WARNING - MATERIAL SPECIFIC FACTS

TITANIUM Ti6Al4V

Benowitz (BEN) is C.A.T's Titanium 22LR Rimfire suppressor, optimized for bolt action and semi-auto firearms, with no barrel length restrictions for 22LR, as long as the projectile is properly stabilized. BEN is capable of shooting 5.7x28mm ammunition but users must be aware that although effective, this ammunition type is not optimized. Full Auto or High Rates of Fire (HRF) (greater than 20 rounds per minute for 5.7x28) are expressly discouraged, unless in life threatening self-defense situations, as the BEN is a lightweight, high performance suppressor dedicated to Low Rates of Fire (LRF), and the user should not exceed a maximum service temperature of approximately **752°F (400°C)**, and as high as **932°F (500° C)**, though with heavily reduced mechanical performance. Once the operating temperature threshold exceeds **800°F (427°C)**, CAT recommends a cooling down below operating temperature. Ti6Al4V has inherent material properties which give the material a lower heat conductivity rating, and the suppressor is susceptible to particle erosion and softening past operating temperature. If the user notices discoloration on the exterior discontinue use and allow it to cool down. **Do not dip the suppressor in water in an attempt to cool it down.**

C.A.T recommends BEN Ti6Al4V users invest in an infrared thermometer and create their own platform specific firing schedule, based on ammunition and barrel length. It is recommended to create a firing schedule by shooting five round groups, with one second intervals between rounds, then testing the temperature of the suppressor up to the operating temperature. The user should record the cool down time until the suppressor returns to **150°F (65°C)**, with an IR emissivity setting of between .87 and .89. At this operating temperature, the user should record the amount of time until the suppressor returns to **150°F (65°C)**. This would become the baseline firing schedule based on the user's platform and ammunition type.

C.A.T BEN Titanium has a standard shouldering surface at the proximal end of the suppressor that will mate with the shoulder of most .22LR hosts. If your host firearm has longer threads that normal, the BEN suppressor is also equipped with an internal shouldering surface at the distal end of the threads. For host firearms with threads longer than 0.635" the BEN will "bottom out" and shoulder against the crown of the muzzle. This is normal. If you prefer not to see the gap at the rear of your threads, there are many aftermarket options for a 1/2x28 "thread spacer." Just make sure you purchase one from a reputable source that is properly machined and intended for use with a suppressor. **Washers or improperly toleranced spacers can cause misalignment.**

Excessive white sparking may be noticed upon first use, this is due to microscopic Titanium dust from the Additive Manufacturing process. Over the course of use this white sparking will subside but will never fully disappear, particularly on short barrel 5.7x28 platforms. Titanium white sparking is separate from flash and cannot be controlled by a flash hider or other methods, as it is a byproduct of Titanium being classed as a reactive metal.

CAT/BEN/A1

1/2X28
DIRECT THREAD

MODEL: CAT/BEN/A1
CALIBER: .22 CAL
WEIGHT TITANIUM: 3.9 OZ *
OVERALL LENGTH: 4.3”
DIAMETER: 1.28”
MIN BARREL LENGTH: NO RESTRICTION
OPTIMIZED VELOCITY: 750 – 1200FT/S
TECHNOLOGY: DIVERGE
RECOMMENDATION: UP TO 5.7×28
FINISH: DLC
MOUNTING: 1/2×28 DIRECT THREAD

INSTALLATION

STEP 1
Remove the magazine from the firearm, then visually and manually check and clear the action and chamber of the firearm. Ensure the host firearm is unloaded at all times.

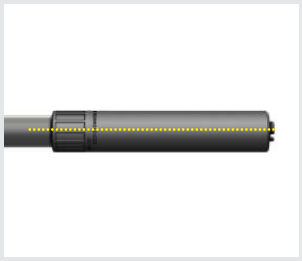
STEP 2
Always ensure the barrel threads and shouldering surfaces are clean and free of debris. (PINK surfaces)

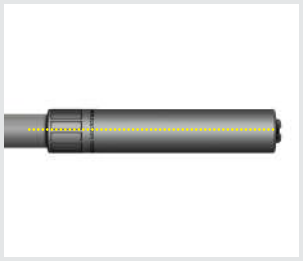
STEPS 3 & 4
Prior to installing the CAT BEN onto the barrel, inspect the CAT BEN threads (PINK) and the shouldering surfaces (BLUE) and ensure those critical surfaces are clean and free of debris.

STEP 5
To install the CAT BEN, slide it over the barrel threads and screw it on CLOCKWISE (right hand to tighten) and tighten the CAT BEN strongly by hand to the barrel like you don't want it to come off, tightening the CAT BEN fully against its shouldering surface.

INSTALLATION

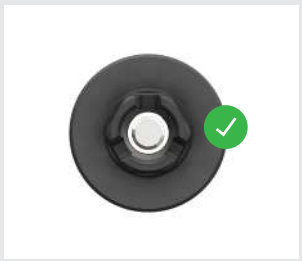
STEP 6
Visually inspect that the CAT BEN is properly installed on the barrel and that it's mounted straight to the centerline of the bore. Ensure the silencer isn't canted in any way and that the CAT BEN is fully shouldered against the barrel shouldering surface.

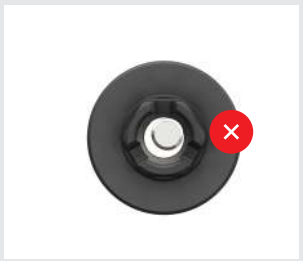




***NOTE - Barrel threads longer than .630" will utilize the internal shouldering surface, shouldering against the muzzle face, which will create a visible gap externally. While rare, it should be kept in mind.**

STEP 7
When the host firearm allows for it, use a properly made, purpose built silencer alignment rod to ensure the silencer is properly mounted and concentric to the bore line.





STEP 8
To remove the CAT BEN from the host firearm, wait for the silencer to cool after use, ensure the firearm is completely unloaded and safe, then unscrew the silencer COUNTERclockwise (left hand to loosen) until removed from the barrel.

CLEANING

BEN is a sealed titanium suppressor and there is no disassembly required for cleaning. Unlike most centerfire cartridges, .22LR is especially dirty ammo. This is compounded by the fact that virtually all .22LR ammo utilizes a cast lead projectile without any kind of jacketing. As that lead bullet moves down the barrel, the rifling will "peel" small pieces of lead off and dump it into the suppressor. Because of this, most .22LR suppressors need to be serviced from time-to-time in order to prevent the lead build up turning your suppressor into a serialized and registered paperweight. CAT recommends using the CAT 206 cleaner every 2000-4000 rounds (depending on your ammo and host firearm selection). Any other cleaning method that is safe for use with Titanium is also acceptable... but CAT 206 is better.