

ALLEYCAT 556

CAT/ALLEYCAT_556/MANUAL

WARNING - MATERIAL SPECIFIC FACTS

TITANIUM Ti6Al4V

C.A.T's ALLEYCAT 556 Titanium 5.56mm suppressors are limited to barrel lengths of 10" or longer, which also includes similar cartridges such as 5.45mm. Full Auto or High Rates of Fire (HRF) (greater than 30 rounds per minute) are expressly discouraged, unless in life threatening self-defense situations, as the ALLEYCAT 556 Titanium is a super lightweight, high performance suppressor dedicated to Low Rates of Fire (LRF), and the user should not exceed a maximum service temperature of approximately **800°F (427°C)** for longer than one minute. Once this temperature threshold is reached, the suppressor should be allowed to cool down. Titanium Ti6Al4V has inherent material properties which give the material a lower heat conductivity rating, and the suppressor is susceptible to particle erosion and melting past this temperature limit. 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 ALLEYCAT 556 Titanium 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 this firing schedule by shooting five round groups, with one second intervals between rounds, then testing the temperature of the suppressor up to **750°F (399°C)**. 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's ALLEYCAT 556 Titanium has a dedicated "waffle" style erosion interface at the end of the blast chamber. This is a sacrificial erosion wall, and users should not be concerned if they are seeing wear, this is designed to support the erosion caused by unburnt particulates (especially in short barrel platforms) and is designed to protect other internal areas inside of the suppressor.

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 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. If Titanium induced white sparking is an undesirable factor in the suppressor's application, C.A.T recommends the use of our Inconel 718 model offerings, as Inconel 718 doesn't spark.

INCONEL 718

C.A.T's ALLEYCAT 556 Inconel 718 suppressors are limited to barrel lengths of 5.5" or longer, which also includes similar cartridges such as 5.45mm. This model is a "duty" focused suppressor, able to support Full Auto or High Rates of Fire (HRF) but the user should not exceed a maximum service temperature of approximately **1100°F (594°C)** for longer than one minute. Once this temperature threshold is reached, the suppressor should be allowed to cool down. The inherent material properties of Inconel 718 include a high heat conductivity rating, with abrasive wear, oxidation wear and delamination wear occurring past **1100°F (594°C)**. 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 ALLEYCAT 556 Inconel 718 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 this firing schedule by shooting five round groups, with one second intervals between rounds, then testing the temperature of the suppressor up to **1000°F (538°C)**. 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's ALLEYCAT 556 Inconel 718 has a dedicated "waffle" style erosion interface at the end of the blast chamber. This is a sacrificial erosion wall, and users should not be concerned if they are seeing wear, this is designed to support the erosion caused by unburnt particulates (especially in short barrel platforms) and is designed to protect other internal areas inside of the suppressor.

CAT/ALLEYCAT_556



1.375x24 HUB

MODEL: CAT/ALLEYCAT

CALIBER: 556

LENGTH: 6.10"

DIAMETER: 1.60"

MIN BARREL LENGTH (CAT-TI): 10"

MIN BARREL LENGTH (INCONEL): 8"

OPTIMIZED VELOCITY: 1100 – 3200FT/S

OPTIMIZED PLATFORM: 14" M4

TECHNOLOGY: SURGE BYPASS

RECOMMENDATION: SEMI-AUTO

SPOOKY 1 ADDED LENGTH: 4.23"

WEIGHT (CAT-TI): 8.9 OZ *

WEIGHT (INCONEL): 18.0 OZ *

MOUNT: 1.375x24

FINISH: DLC

1x16LH QD

MODEL: CAT/ALLEYCAT

CALIBER: 556

LENGTH: 6.10"

DIAMETER: 1.60"

MIN BARREL LENGTH (CAT-TI): 10"

MIN BARREL LENGTH (INCONEL): 8"

OPTIMIZED VELOCITY: 1100 – 3200FT/S

OPTIMIZED PLATFORM: 14" M4

TECHNOLOGY: SURGE BYPASS

RECOMMENDATION: SEMI-AUTO

SPOOKY 1 ADDED LENGTH: 4.23"

WEIGHT (CAT-TI): 9.0 OZ *

WEIGHT (INCONEL): 16.6 OZ *

MOUNT: 1X16LH QD

FINISH: DLC

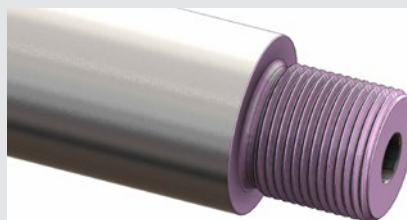
INSTALLATION

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 thread and shoulders are clean and free of debris. To install the C.A.T 1x16LH QD muzzle device, clean and degrease barrel threads and make sure barrel shoulder is also clean (pink surfaces).



INSTALLATION

STEP 3

Ensure the C.A.T 1x16LH QD muzzle device internal thread and shoulders are clean, degreased, and free of debris (gold surfaces). Coat the barrel threads with a high temperature thread locker, such as Rocksett, according to that manufacturers instructions.



STEPS 4 & 5

Screw the C.A.T 1x16LH QD muzzle device onto the barrel threads and torque it down with an 11/16" (.688") wrench to 25-30ft/lb. Allow the thread locker to fully cure before using the suppressor on a firearm.



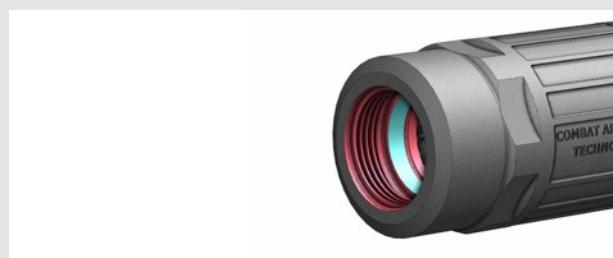
STEP 6

Inspect the muzzle device and ensure the critical surfaces are clean and free of debris (green surfaces, especially the taper shoulder).



STEP 7

Prior to installing the ALLEYCAT 556 on the muzzle device, inspect the internal mounting surfaces of the ALLEYCAT 556 and ensure the critical mounting surfaces are clean and free of debris (red surfaces - pay special attention to making sure the blue taper shoulder region is clean and free of debris).



STEPS 8 & 9

To install the ALLEYCAT 556, slide it over the muzzle device and thread COUNTER-clockwise (left hand to tighten) and tighten the ALLEYCAT 556 strongly by hand to fully engage the taper shoulder interfaces. When ALLEYCAT 556 is properly installed this taper shoulder interface will prevent loosening during use but it is highly recommended that users continue to check between cooling periods, as dirt and heat expansion can sometimes lead to interface separation.



INSTALLATION

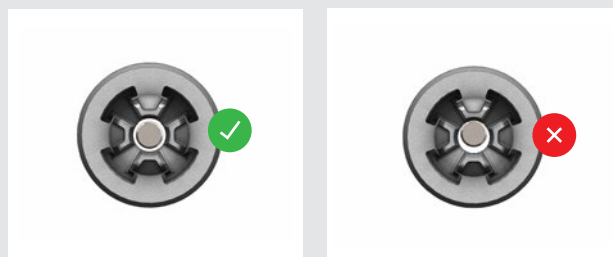
STEPS 10 & 11

Visually inspect that the ALLEYCAT 556 is properly installed on the muzzle device and that it's mounted straight to the centerline of the bore. Ensure the suppressor isn't canted in any way and that the ALLEYCAT 556 is fully shouldered against the taper on the muzzle device.



STEPS 12 & 13

Use a properly made, purpose built suppressor alignment rod to ensure the suppressor is properly mounted and concentric to the bore line.



***To remove the ALLEYCAT 556 from the muzzle device, wait for the suppressor to cool after use, ensure the firearm is completely unloaded and safe, then unscrew the suppressor CLOCKWISE (right hand to loosen). Left hand threads are used on the C.A.T 1x16LH QD muzzle devices so that when uninstalling the suppressor, the QD muzzle device will always stay on the host firearm rather than coming off and becoming stuck inside the suppressor.**