

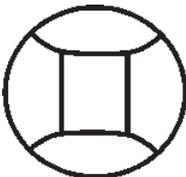
# TM-SANDSTORM

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## OPERATION AND MAINTENANCE OF SOUND SUPPRESSOR MODEL SANDSTORM

**Before using this suppressor,  
be certain you have read and  
understand this manual.**

Manufactured by



**GEMTECH**  
Div. of Gemini Technologies, Inc.  
P.O. Box 140618  
Boise, Idaho 83714

ISSUED: July 31, 2011

☆☆☆☆ **WARNING** ☆☆☆

☞ **Because sound suppressed weapons make less noise than non-suppressed weapons, it is easy to forget that they are still firearms. It is of vital importance to remember that a sound suppressed firearm is just as dangerous as a non-suppressed one, and the same safe handling requirements apply.**

TM-SANDSTORM

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# TM-SANDSTORM

## OPERATIONAL MANUAL FOR SOUND SUPPRESSOR MODEL SANDSTORM (7.62 mm NATO)

*Manufactured by*

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☆☆☆☆☆ **WARNING** ☆☆☆☆☆

**Failure to follow installation and maintenance instructions detailed in this manual can result in potential for serious injury to the user and damage to the weapon.** Firearm sound suppressors are user attached firearm muzzle devices, and as such are subject to improper attachment unless the proper procedures outlined in this manual are followed.

**MANUFACTURER'S DISCLAIMER**

The manufacturer is not responsible for improper usage of this product. This product is potentially dangerous, and as such it is the user's responsibility to understand and implement its proper use. If you do not understand the instructions in this manual, please contact the manufacturer for further clarification.

**GENERAL DESCRIPTION**

The SANDSTORM is the shortest, lightest, most efficient in its size class .30 caliber suppressor made today. Please take a few minutes to read this instruction manual and keep it in a safe and convenient place. Designed for the 7.62x51 NATO cartridge, it is usable with any .30 caliber cartridge of similar case capacity.

The model SANDSTORM sound suppressor is offered in a standard 5/8-24 thread mount only. It is not offered in a quick detach mounting system. On special order it can be offered threaded M18x1.5 for the Accuracy International precision rifles.

All muzzle attachments, including suppressors, will change barrel harmonics and standing waves. This results in a slight change in point of impact with the device in place. The SANDSTORM suppressor, due to its light weight, results in less point-of-impact shift than most comparable sized suppressors. The degree of change in the point of impact will vary with the specific weapon and both the rigidity and metallurgy of the barrel. When used with standard weight law enforcement or military grade barrels, the SANDSTORM suppressor will have no deleterious effect on group size.

This suppressor is effective in markedly reducing the sound of the muzzle blast, making it difficult for an observer to determine the origin of the shot and eliminating the need for shooter hearing protection. There is no way of eliminating the ballistic crack (or sonic boom) of the projectile traveling down-range.

This suppressor contains no expendable parts. We recommend against cleaning the interior of the suppressor. This instruction manual gives the necessary instructions for maintenance of this unit.

## **USE OF ABLATIVE AGENTS (ARTIFICIAL ENVIRONMENT)**

Do not fire this suppressor with any foreign material inside. This suppressor is designed to operate completely dry. Introduction of liquids, greases, or other foreign materials can cause abnormal pressures and must **never** be used. Any resultant damage is not covered under warranty.

## **OVERALL EFFECTIVENESS**

The real limiting factor on the effectiveness of centerfire rifle suppressors is related to the sound of the bullet in free flight. The free flight bullet noise is related to the general bullet shape and is also directly proportional to the bullet velocity. The SANDSTORM suppressor is capable of reducing the sound of the muzzle blast to the vicinity of bullet and action noise levels. Because of the sound level of the bullet in flight, it is not possible to truly appreciate the degree of reduction when the muzzle blast is reduced to less than the bullet flight noise. Because of the frequency multiplication and spectrum shift capabilities of the SANDSTORM suppressor, the muzzle blast is reduced and masked by the bullet flight noise.

There are two additional added benefits of a sound suppressor. The first is that a sound suppressor is also an exceptionally effective recoil reducer, often reducing recoil to less than one fourth of its original magnitude. The second is that a sound suppressor is an exceptionally effective flash suppressor, and when using a night vision device as a sight, the use of an efficient sound suppressor is almost mandatory to keep the flash from causing "blooming" on the viewing screen of certain variations of night vision devices.

The added weight of the suppressor on the barrel changes barrel vibrations, which usually improves grouping. The extra weight will alter the point of impact slightly as compared to the non-suppressed weapon. However, because of the design of the mounting system, point of impact shift is consistent and predictable.

### SAFETY NOTES

1. Always handle weapons in a safe manner and assume they are loaded until they have been cleared.
2. User installation or removal of the sound suppressor must be accomplished in accordance with the instructions contained in this book.
3. **Operating Temperatures:** During use, the SANDSTORM suppressor absorbs large quantities of heat from the burning propellant gases. This heat is dissipated by radiation, convection, and conduction. **The elevated temperatures can pose a hazard to personnel and materials that may contact the suppressor when hot, and the suppressor must be allowed to cool to ambient temperature before handling.**
4. **Only use the suppressor completely dry.**

☆☆☆☆☆ **DANGER** ☆☆☆☆☆

☞ **Before performing any installation or maintenance operation, always remove the magazine from the firearm, open the action, and visually ascertain that the chamber is empty and the weapon unloaded. Failure to do so can result in potential for serious injury to the user and others in the vicinity.**

### SPECIFICATIONS

Caliber:	7.62 NATO and similar
Length:	7.8 inches
Diameter:	1.5 in.
Weight:	13.3 ounces
Materials:	High tensile strength titanium alloys
Finish:	Matte, Grey anodize
Minumum Barrel Length:	16 inch

☆☆☆☆☆ **WARNING** ☆☆☆☆☆

☞ **This suppressor is not intended for fully automatic fire. With fully automatic fire, heat buildup within the suppressor can reach levels that can cause severe burns and can ignite flammable materials. Because the suppressor becomes very hot during use, care must be used to prevent burns when touching or removing a hot suppressor.**

## AMMUNITION

The SANDSTORM was designed specifically for use in weapons chambered for the NATO 7.62x51mm cartridge. It is suitable for use with .30 caliber cartridges having smaller case capacity as well as the .30-06 and .300 WM.

For all of our centerfire rifle suppressors it is recommended that only full metal jacketed, factory loaded hunting ammunition, or specific match-grade bullets be used. Some of the highly frangible jacketed bullets used in reloading ammunition have a tendency to have jacket separation, which is why we recommend the use of full metal jacketed bullets with the suppressor. Jacket separation will cause the bullet to tumble while in the suppressor which can seriously damage the internal baffles and lead to suppressor failure. Because of this, damage caused by use of any bullet other than the above **will not be covered under warranty if there is jacket separation.**

There has been a move toward the use of specially loaded .308 (7.62x51mm) subsonic ammunition to eliminate the ballistic crack of the projectile traveling faster than the speed of sound. Unfortunately, the majority of subsonic .308 ammunition is loaded with heavy, boat-tail projectiles which do not stabilize adequately in the twist rate of virtually all .30 caliber rifles. These projectiles, which may give a decent group at 50 meters, will yaw significantly during the first 10-15 meters in front of the muzzle, including within the suppressor. **Because of the potential for suppressor damage with subsonic ammunition, Gemtech will not warrant damage caused by subsonic ammunition not approved by us.** Specifically, we recommend against the use of Lapua, IMI, and other .308 subsonic ammunition loaded using boat-tail projectiles. At the time of printing of this manual, only Engel Ballistic Research subsonic ammunition meets Gemtech warranty specifications.

☆☆☆☆ **WARNING** ☆☆☆

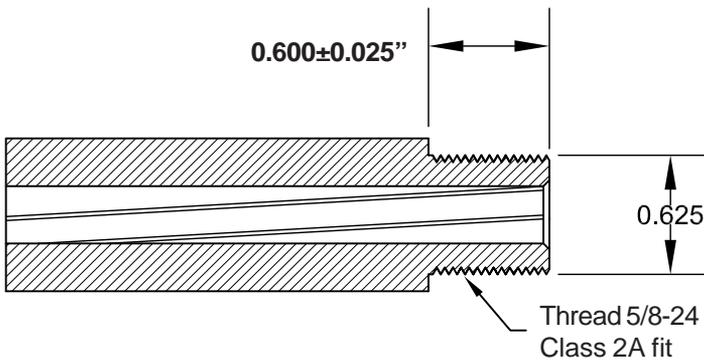
☞ Failure to follow installation instructions detailed in this manual can result in potential for serious injury to the user and damage to the weapon.

**BARREL THREADING**

The Sandstorm suppressor was gauged for alignment and run-out on a precision test fixture before shipping from the factory. To insure proper alignment, it is imperative that the barrel be threaded properly. Many semi-automatic .308 rifles come with factory threaded barrels, which are almost always threaded correctly.

For unthreaded barrels, please refer to the drawing below. To insure concentricity, it is important that the barrel be threaded with the threads concentric with the bore and with the shoulder at the back of the barrel be exactly 90° to the bore axis. See the sketch below.

A small (0.06") thread relief is incorporated into the rear mount of the suppressor. A thread relief in the barrel at the back of the threads is optional.



**Barrel Threading Specifications**  
**Sandstorm .308 suppressor**

## MOUNTING the SANDSTORM

Thread mounting is particularly suited to bolt action weapons. When used on a semi-automatic weapon, it will be necessary to frequently ascertain that the suppressor is not loosening on the threads.

Installation requires that the suppressor be tightly screwed on to the threaded barrel. It is suggested that a rubber grip enhancer (such as what is used to unscrew jar lids in the kitchen) be used to be certain that the suppressor is tightly in place. Because point of impact shift will vary with the installation torque, it may be necessary to re-sight the weapon after installation and prior to mission critical operations. **Never ever use any type washer or lockwasher when mounting the suppressor.**

When removing the SANDSTORM suppressor, remember that suppressors get hot during use. It is best to allow it to cool until it can be touched with the bare hands before removing.

☆☆☆☆☆ **CAUTION** ☆☆☆☆☆

☞ **Always read the warning label on any cleaner or solvent, and remember that virtually all solvents are inherently dangerous and potentially toxic. Always use adequate ventilation and both skin and eye protection when using organic solvents and avoid open flames.**

## CLEANING

The SANDSTORM suppressor is constructed of 100% corrosion resistant titanium. As such, there is no real concern about corrosion from the products of combustion of the propellant gases. **We have found no need for frequent or compulsive cleaning, or (for that matter) any cleaning whatsoever other than the mounting threads. We strongly advise against efforts to clean the inside of the suppressor.**

Never use any water-based cleaning agent for any firearm related purpose. This includes SLIP-2000, Simple Green, etc. Use only hydrocarbon-based solvents. What we suggest is either WD-40 or a mixture of 1 part

automatic transmission fluid and 2 parts mineral spirits.

The mounting threads can be cleaned easily by brushing the threads with an old toothbrush dipped in the solvent. While there is the compulsion to clean everything firearm related, the reality is that more damage is done to suppressors by cleaning efforts than by not cleaning. It is acceptable to blow out the suppressor with high pressure compressed air. Do not, under any circumstances, attempt to pass a cleaning patch through the suppressor.

Ultrasonic cleaners are not effective with hydrocarbon-based solutions. Water based cleaners are not recommended.

Soak the unit overnight for cleaning of the body of the suppressor. The suppressor is then drained by standing first on one end and then the other, followed by rinsing with a similar solvent and draining again.

The suppressor must be blown dry with a source of compressed air so there is absolutely no residual moisture in the suppressor. **Firing with any liquid remaining in the suppressor can result in abnormal and erratic internal pressures.** Any damage resulting is the user's responsibility and not covered under warranty.

## **HUNTING NOTICE**

Many states have laws prohibiting the hunting of game with a sound suppressor. Some even prohibit hunting non-game animals with a suppressor. If hunting with a suppressor is desired, consult your local state Fish & Game Department.

**WARRANTY STATEMENT**

Our "warranty" has been practiced since our personnel started in the suppressor business in 1976, in a time before legalese and when a handshake and this simple statement sufficed: "If a Gemtech product breaks and it's your fault, we'll fix it for a fair price in a timely manner. If it's our fault, we'll fix it quickly at no charge." This policy born of pride in craftsmanship and honor has served us and our clients well for over two decades and will continue in Gemtech's future.

The small print follows:

The Magnuson-Moss Act (Public Law 93-637) does not require any seller or manufacturer of a consumer product to give a written warranty. It does provide that if a written warranty is given, it must be designated as "full" or as "limited" and sets minimum standards for a "full" warranty.

As do most major firearms manufacturers, Gemtech has elected not to provide any written warranty, either "limited" or "full," rather than to attempt to comply with the provisions of the Magnuson-Moss Act and the regulations issued thereunder.

There are certain implied warranties under state law with respect to sales of consumer goods. As the extent and interpretation of these implied warranties varies from state to state, you should refer to your state statutes.

Gemtech certifies that all sound suppressors manufactured by them are free of defects in materials or workmanship, and that they meet manufacturing specifications at the time of manufacture.

It is our intent that the customer be completely satisfied with the product. Certain Gemtech products may be classified as ordnance and/or implements of war and are sold by us with the specific understanding that Gemtech has taken every reasonable precaution in providing our customers with inherently safe merchandise, and that we assume no liability whatsoever for unsafe handling or operation by the purchaser or his agents. Gemtech assumes no responsibility whatsoever and we will honor no claims for damages, regardless of nature, for physical injury or property damage resulting from careless and/or irresponsible handling, adjustments to equipment, improper operation, neglect, or abuse.

Gemtech reserves the right to make changes at any time and without notice, in prices, to change specification or design, to add or remove accessory materials, and to add or delete items without incurring any obligation.

Use of ammunition that does not meet SAAMI specifications will void all warranties.

**REPAIR POLICY**

Gemtech maintains complete repair facilities for all suppressors manufactured by them or their antecedent companies. Return authorization and shipping instructions must be obtained prior to return. Contact Gemtech for this information.

ATF no longer requires transfer on a Form 5 to the manufacturer for repair. However, they do require a letter accompanying the weapon detailing the repairs or modifications required. ATF requires proof of ownership, satisfied by a photocopy of the front of the owner's Form 3, 4, or 5.

NOTE: ATF prohibits transferring the serial number to a new outer tube in the case of damage to the tube. Tube damage will require a new suppressor.

All Gemtech products are  
100% manufactured in the  
United States of America.

