

FERFRANS



PRODUCT CATALOG ^ **ISSUE 01**

In this day and age of increasing global terrorism, combat operations have no boundaries. The line between unconventional and conventional warfare has diminished, as well as the gray line between military and police operations. Troops that will be operating in urban centers today might well be the same troops to fight in the jungle or desert environment tomorrow. The budgetary constraints of Armed Forces and Law Enforcement have also limited the equipment capabilities of Special Units combating terrorism.

When FERFRANS designed the Special Operations Assault Rifle (SOAR), it took into consideration the needs and limitations of Special Forces and Special Law Enforcement units. Such a rifle must embody the features necessary to meet the needs of Special Operations now and in the future. This rifle must be Reliable, Accurate, Maintainable, Durable, Adaptable AND Available. As Special Forces troops are being used to combat terrorism, an increase in accurate firepower is vital for small unit operations engaging a larger enemy force.

Due largely to the abundance of and familiarity with the M16 type rifles in the inventory of NATO troops, it was advantageous to use the M16 as a platform for modification and upgrade rather than designing a new rifle system. Using the M16 also answers the need for Maintainability and Availability. However, the M16 and especially the M4 type rifles remain plagued with uncontrollability in full-auto fire as well as reliability. This is evident when US troops replaced the full auto feature with a 3 round burst mechanism (M16A2), limiting firepower.

FERFRANS RATE REDUCTION SYSTEM

To answer the uncontrollability issue of the M16 rifle, FERFRANS designed the Rate Reduction System that reduces the rate of full-auto fire from 860 - 900 rpm to a much more controllable 580 - 680 rpm. This feature is unique to FERFRANS weapons. With such a reduced cyclic rate, burst fire or nonstop full-auto fire can be easily achieved by mere controlling one's trigger squeeze to keep bullets on target, thereby increasing accuracy. By reducing the rate of fire in full-auto, the impact stress on the entire bolt group is also reduced, making full-auto fire controllable and smooth. As Eugene Stoner (designer of the M16 rifle) described it, "impact stress is a function of velocity." When you reduce the velocity by 20%, it doesn't mean that the impact stress is reduced by only 20% but by at least 40%. This is almost a 50% reduction on impact stress, increasing reliability, parts longevity and reducing overheating.

As Special Forces missions and requirements evolve, there is an increasing need for an assault rifle that will be safe to fire even when water is still inside the bore, as in "over the beach" operations. FERFRANS incorporated a short-stroke piston to solve this challenge and designated it as the FERFRANS SOAR (P) to denote Piston. All FERFRANS SCW and HVLAR use the FERFRANS short stroke piston.

The FERFRANS WEAPON SYSTEM is a family consisting of 5 modular weapons types using one operating system, commonality of parts and one training. SCW (Sub-Compact Weapon), SOAR P10 SBR, SOAR P14 Carbine, SOAR P20 Assault Rifle, and HVLAR High Volume Light Automatic Rifle.

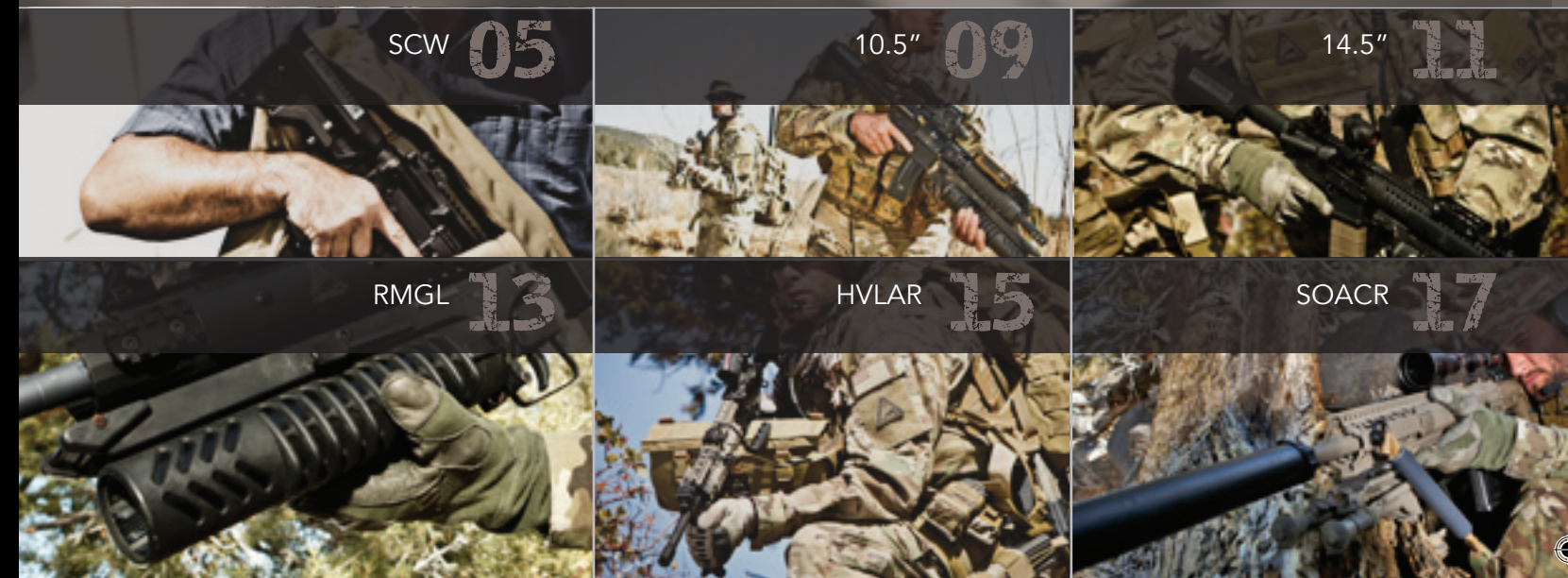
- RELIABLE** – with the patented Rate Reduction System – Reliable Firepower
- ACCURATE** – Fully controllable full-auto and match grade barrels full increased Accuracy.
- MAINTAINABLE** – With 80% parts commonality with M16, M4 type rifles, parts are abundant and readily available. Maintenance training is also minimal.
- AVAILABLE** – The FERFRANS SOAR (P) is readily available within 3-6 months after Export approval by the U.S. State Department with a production capacity of 2,000 rifles per month for larger orders.
- DURABLE** – All FERFRANS rifles are designed for full-auto operation and with the Rate Reduction System, increase reliability, parts longevity and decrease the chance of overheating.
- ADAPTABLE** – The FERFRANS Special Operations Assault Rifle can be configured as a Sub-Compact Weapon, Short Barreled Assault Rifle, Assault Rifle or a Machine gun by just changing the length of the barrel. It is also equipped with a quad rail that can readily accommodate all the tactical accessories needed and will function any M16, M4 type magazines from 20, 40, 60, 100 and 150 round magazines.



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FERFRANS® SOAR (Special Operations Assault Rifle)

The FERFRANS SOAR Assault Rifle incorporates modifications and improvements to the M16/M4 rifle platforms that will, among other benefits, ensure enhanced reliability, controllability, accuracy, firepower, and parts longevity.

By incorporating the totally unique, patented FERFRANS Rate Reduction System (RRS), the cyclic rate of full auto fire in the SOAR has been reduced below 700 rpm. This together with the equally unique FERFRANS muzzle brake have allowed the weapon to be totally controllable in the full auto mode. The RRS also eliminates bolt bounce, reduces the impact stress by almost 50%, and reduces heat accumulation on the barrel and bolt to be more resilient against cook off.



SCW

sub compact weapon

Due to the rise in terrorism, covert operations by special forces require a Sub Compact Weapon (SCW) that will deliver maximum firepower in the smallest possible package.



Attacks against VIPs, diplomats, political figures, and dignitaries has prompted security officers to deploy a special kind of weapon that is concealable without sacrificing firepower and accuracy. The FERFRANS SCW was designed for situations where maximum firepower and accuracy can be delivered in the smallest possible package.

The FERFRANS SCW was developed when there were challenges in the lack of fully controllable PDW (Personal Defense Weapon), because of the NATO 5.56X45 rifle caliber cartridge in a short barrel. In addition was the ineffectiveness of the 9x19 mm round used in sub-machine guns against armored opponents. To close this gap, some companies developed new rounds like the 6X35 mm, 4.6X30 mm and the 5.7X28 mm to achieve a fully controllable full-auto compact weapon. However, this created

a third challenge, logistics. The ammunition is not readily available and expensive. It is imperative that the weapon will use the NATO 5.56X45 caliber.

To effectively answer these issues, FERFRANS developed the SCW. To address the controllability issue with the NATO round, FERFRANS incorporated the FERFRANS Rate Reduction System that reduces the rate of automatic fire from 900 rpm to 640 rpm, making the weapon fully controllable in full-auto mode, even with one hand shooting. The rate reduction system has also increased reliability, parts longevity, and heat control for sustained full-auto fire.

The combination of the FERFRANS Rate Reduction System in a rifle caliber compact machine gun allows accurate-controllable full-auto fire, stopping power, ideal for CQC and CQB operators.

reliable • accurate • maintainable • available • durable • adaptable



Caliber: _____ 5.56X45 mm
Rate of Fire: _____ Semi/Full Auto- 620-640 rpm (reduced)
Velocity: _____ 2,150 ft/sec (655 m/sec) – M193 (55 gr)
Magazine Capacity: _____ 20 rounds, 30 rounds, 40 rounds, 90 rounds
Weight w/o magazine: _____ 6.6 lbs. (3 kg)
Length w/ stock retracted: _____ 24.5" (62.23 cm)
Length w/ stock extended: _____ 28" (71.12 cm)
Barrel Length: _____ 7.5" (19.05 cm)





»»»» Concealed Carry Weapons Bag

CCWB (SCW)





10.5"

completely water resistant



Caliber: 5.56X45 mm
Rate of Fire: Semi/Full Auto – SOAR-P10 (665 RPM)
Velocity: 2,355 ft/sec (718 m/sec) – M193 (55 gr)
Magazine Capacity: 20 rounds, 30 rounds, 40 rounds, 90 rounds
Weight w/o magazine: 7 lbs. 7.8oz. (3.53 kg)
Length w/ stock retracted: 28" (71.12 cm)
Length w/ stock extended: 31" (78.74 cm)
Barrel Length: 10.5" (26.67 cm)



10.5" - P10 SBR



When Special Forces required a shorter rifle for CQB or CQC, the FERFRANS SOAR-P10 is the answer. Similar to the SOAR-P14, this compact weapon sports a 10.5" stainless steel machine gun barrel. It is also the favorite of law enforcement SWAT units for close quarter scenarios, as well as being accurate and effective out to 100-yards and beyond. Like the SOAR-P14, the P10 can be equipped with the FERFRANS RMGL (Rail Mounted Grenade Launcher), a highly advanced weapon system in its own right.





The FERFRANS SOAR-P14 was designed as an improvement over the standard military M4A1 carbine. The P14 was developed to operate in any operational environment, and incorporates a state-of-the-art short stroke piston operating system in conjunction with the FERFRANS Rate Reduction System. The basic SOAR-P14 features a mid-length 14.5" stainless steel match grade heavy barrel specifically designed to be full-auto capable. The handguard system is free floating and allows accessory rails to be mounted where YOU want them!



»»»» P14 Carbine

SOAR »»»»»



14.5"

Caliber: _____ 5.56X45 mm
 Rate of Fire: _____ Semi/Full Auto – SOAR-P14 (562 RPM)
 Velocity: _____ 2,739 ft/sec (835 m/sec) – M193 (55gr)
 Magazine Capacity: _____ 20 rounds, 30 rounds, 40 rounds, 90 rounds
 Weight w/o magazine: _____ 8 lbs. 04oz. (3.65 kg)
 Length w/ stock retracted: _____ 32" (81.28 cm)
 Length w/ stock extended: _____ 35" (88.9 cm)
 Barrel Length: _____ 14.5" (36.83 cm)





RM GL



➤➤➤➤ Rail Mounted Grenade Launcher



The FERFRANS RMGL is a Quick Attach / Detach single-shot weapon designed as a major improvement to replace the M203 grenade launcher. The RMGL is almost half the weight of the M203 and can be quickly attached to the free floating handguard Mil-Spec-1913 ("Picatinny") Rail (STANAG 4694 NATO Accessory Rail) assembly, and NOT the weapon's barrel. This is important because in a fire fight, the recoil of the grenade launcher will affect the integrity and accuracy of the hot barrel. The RMGL will also eliminate the need for a barrel with the "M203" cut, which is a heat-sink.

Another important advantage of the RMGL is its Double Action trigger, which greatly minimizes the possibility of an unintentional discharge of the launcher. The DA trigger is also important in that some of the 40 mm cartridge, when exposed in field combat conditions, might need multiple hits on the primer to fire. The RMGL's double action trigger allows the operator to squeeze the trigger without ejecting the round to cock the trigger as in the M203! What's more the double action feature is backed up by an ambidextrous safety. The trigger pack is modular and is removable in the field without tools for cleaning, repair or replacing.

The RMGL's breach tilts down at the end of forward travel to permit loading of all NATO low velocity 40x43 mm ammunition as well as extended range 40x53 mm ammunition. By using an optional shoulder stock, the RMGL can be used as a stand-alone weapon.



1



2



3



Weight: ——— 1.3 lbs (.59 kg)
Length: ——— 12.75" (324 mm)
Barrel Length: —9" (228.6 mm)





HVLAR

- Caliber:** 5.56X45 mm
- Rate of Fire:** Semi/Full Auto- 560-600 rpm (reduced)
- Velocity:** 3,116 ft./sec (950 m/sec)
- Magazine Capacity:** 20 rds, 30 rds, 40 rds, 90 rds, 100 rds, 150 rds
- Weight w/o magazine:** 9.6 lbs (4.3 kg) (with carrying handle and grip bipod)
- Length w/ stock retracted:** 33.5" (85.09 cm)
- Length w/ stock extended:** 36.5" (92.71 cm)
- Barrel Length:** 14.5", 16" (40.64 cm)

FERFRANS' objective in creating the High Volume Light Automatic Rifle (HVLAR) was to close the gap between the infantry rifle and the machine gun. Although the SAW was to address this gap, it failed to do so. Current Anti-Terror combat engagements with terrorists and insurgents involve combined swarming tactics at CQB distances and striking from positions among civilian population. This requires a specialized weapon that emphasizes lightweight and portability in order to deliver maximum dismounted maneuverability and accurate firepower sustainability.

>FIREPOWER>

Although the SAW brings a great deal of firepower to the fight, it is heavy and difficult to maneuver, slowing the operator down. Accuracy has also been a problem, as well as automatic fire that it is only used to suppress area targets. The lighter FERFRANS HVLAR will deliver the firepower to suppress point and area targets of immediate concern without sacrificing accuracy, weight and maneuverability. The HVLAR utilizes a rate reduction system that reduces the cyclic rate of full-auto fire to about 550-600 rpm, making sustained full-automatic fire

controllable and accurate. It operates with a 90 round magazine and also accepts any Mil-Spec M16 magazine.

>SPEED AND MOBILITY>

Current Combat operations occur at CQB distances in both jungle and urban settings. Offensive operations at this distance require running, jumping, going to the ground, getting up, zigzagging and the using of virtually all shooting positions and transitions to close with the enemy. SAW Operators cannot keep up with this because of the size and weight of the weapon. The FERFRANS HVLAR is portable, lightweight

and will deliver sustained, accurate full-auto fire, required for such scenarios.

>ACCURACY>

The FERFRANS HVLAR has two features to answer the SAW's accuracy shortcomings. First is the unique and foolproof Rate Reduction System that makes the HVLAR fully controllable in full-auto fire to engage, suppress and eliminate point targets. Second, terrorists and insurgents use civilians as human shields, the FERFRANS HVLAR will help the soldier in engaging his target because it is equipped with a selector switch that will enable him

to use pinpoint semi-auto fire.

Lastly, the logistics of the SAW makes it very expensive, requiring links and specific ammunition to work reliably (SS109), as its magazine feed is seldom 100% reliable. The SAW also requires a professional gunsmith to maintain and repair it. With Defense Budgets shrinking, the SAW is increasingly expensive to purchase, operate and maintain. The FERFRANS HVLAR will work with any ammunition and requires far less maintenance than the SAW.

FERFRANS offers the HVLAR (High Volume Light Automatic Rifle) to answer the shortcomings of the SAW (Squad Automatic Rifle)

High Volume Light Automatic Rifle



Caliber: 7.62 mm / .308 caliber
Type of Fire: Standard, Semi Auto, Full Auto (reduced)
Barrel: Stainless match grade
Barrel Length: 12", 16", 18", 20"
Twist Rate: 1:11
Stock: Retractable 6 Position
Magazine Capacity: 20 Rounds, 40 rounds
Magazine Type: Polymer / Aluminum
Operating System: Gas / Short Stroke Piston
Bolt System: FERFRANS Delayed Sear Activation System
Trigger System (Semi Auto): Match
Weight (16"/20"): 8.7 lbs (3.05 kg) / 8.9 lbs (4.04 kg)
Stock retracted (16"): 34.5" (87.63 cm)
Stock extended (16"): 38" (96.52 cm)

SOACR

Special Operations Adaptable Combat Rifle



The concept of the FERFRANS SOACR was to create a rifle that combines a marksman rifle with a combat rifle. The .308 round was used because it is common with sniper rifles and is manageable enough for combat use. This will give the operator more accuracy at longer distances as well as increased stopping power medium distances.

The SOACR is mission adaptable, be it patrol, assault, dedicated marksman, heliborne precision shooting, sniper, counter sniper operations, etc. The application is endless and the operator need not change his equipment.

There are two operating systems for the SOACR: Direct Gas and Short Stroke Piston. The handguard is a quad rail with accessory rails at the 12, 3, 6, 9 O'clock positions. It is equipped with the Rate Reduction System to reduce felt recoil with the 7.62X51 mm round as well as a muzzle brake to prevent muzzle rise. The operating system as well as maintenance is similar to the common M16/M4 rifle.

When increased range and accuracy is needed with combat capability, the SOACR is the answer.



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