



# Ground Combat Weapon Systems

**HANDBOOK**

EDITION 4.0



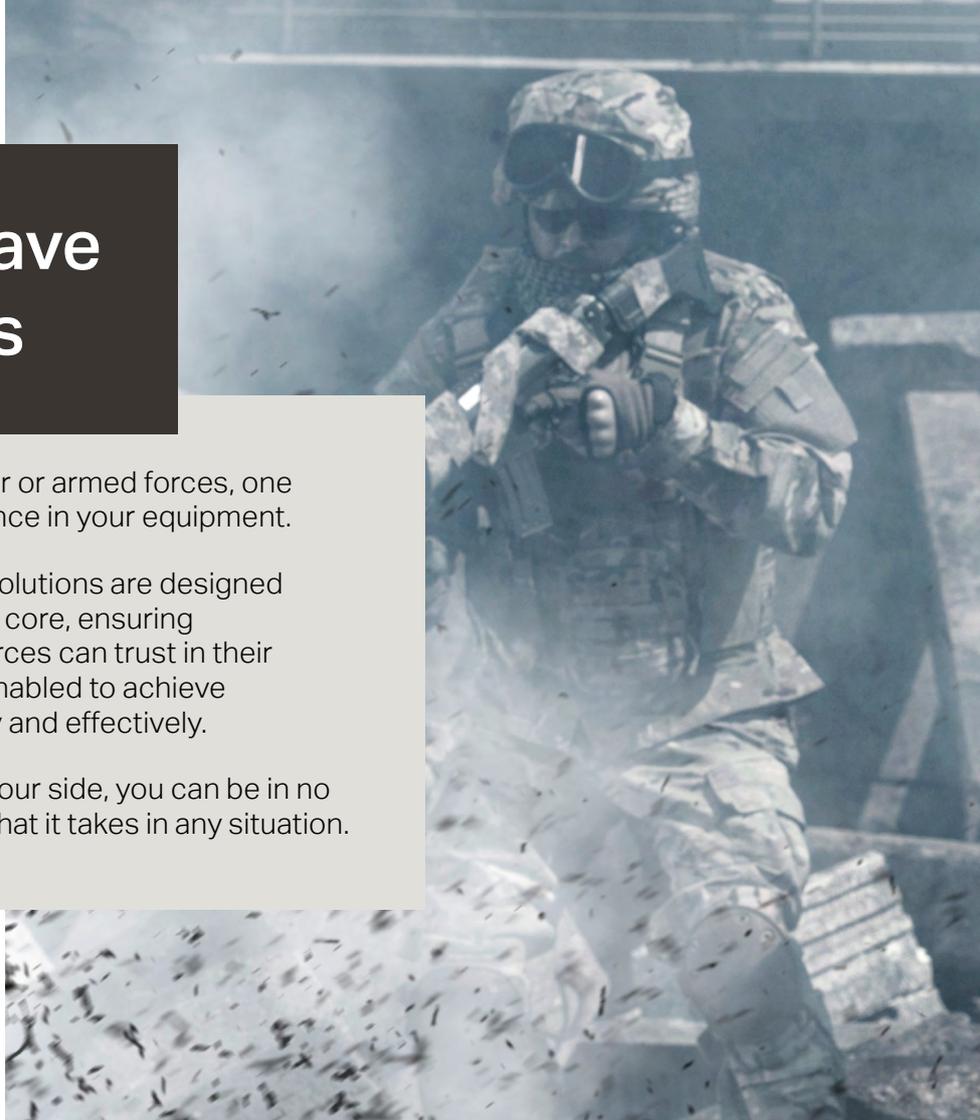
**SAAB**

# Know you have what it takes

Whether for the soldier or armed forces, one thing is vital – confidence in your equipment.

Our Ground Combat solutions are designed with user needs at the core, ensuring soldiers and armed forces can trust in their capabilities and feel enabled to achieve their objectives, safely and effectively.

With our systems by your side, you can be in no doubt that you have what it takes in any situation.







**AT4 FAMILY**

- AT4 WEAPON
- AT4 TRAINING

**CARL-GUSTAF® SYSTEM**

- CARL-GUSTAF® WEAPON
- CARL-GUSTAF® SIGHTS
- CARL-GUSTAF® AMMUNITION
- CARL-GUSTAF® TRAINING
- CARL-GUSTAF® SUPPORT

**NLAW**

- NLAW WEAPON
- NLAW TRAINING





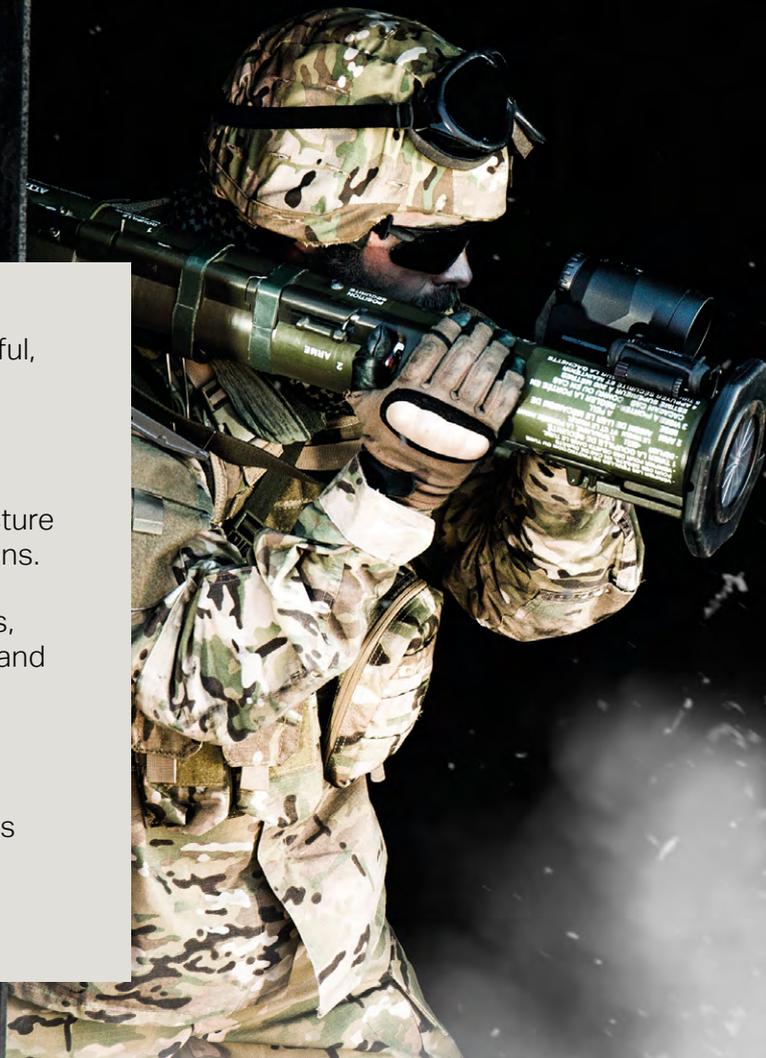
## AT4 FAMILY

The AT4 family consists of multiple powerful, man-portable and disposable weapons. Each is optimised for ease of operation, regardless of the user's experience level.

Our range includes anti-armour, anti-structure and anti-personnel/high-explosive weapons.

With identical handling across all weapons, the AT4 family offers maximum versatility and reduced training load, whatever the task.

The weapon can fire no matter the surroundings, even if the soldier is in a room with a wall behind them. This ensures that the environment does not dictate how to act when a threat appears.



## AT4 WEAPON

A soldier in winter camouflage gear is kneeling in a snowy field, aiming an AT4 rocket launcher. The soldier is wearing a black helmet with a night vision device, a white and grey camouflage jacket with a fur-lined hood, and a black tactical vest. The background shows a snowy landscape with some trees and another soldier in the distance.

Forceful, versatile and easy to use, the AT4 family is highly effective against multiple targets.

These weapons benefit from identical handling across the entire AT4 family for maximum flexibility of use.



## AT4CS HP

AT4CS HP is an anti-armour weapon with confined-space capability.

It benefits from a warhead uniquely optimised to penetrate armour and a launch system offering very high effectiveness against armoured targets.

### TECHNICAL DATA

LENGTH	1.04 m
WEIGHT	7.8 kg
TARGETS	Armoured vehicles and MBTs
EFFECTIVE RANGE	300 m





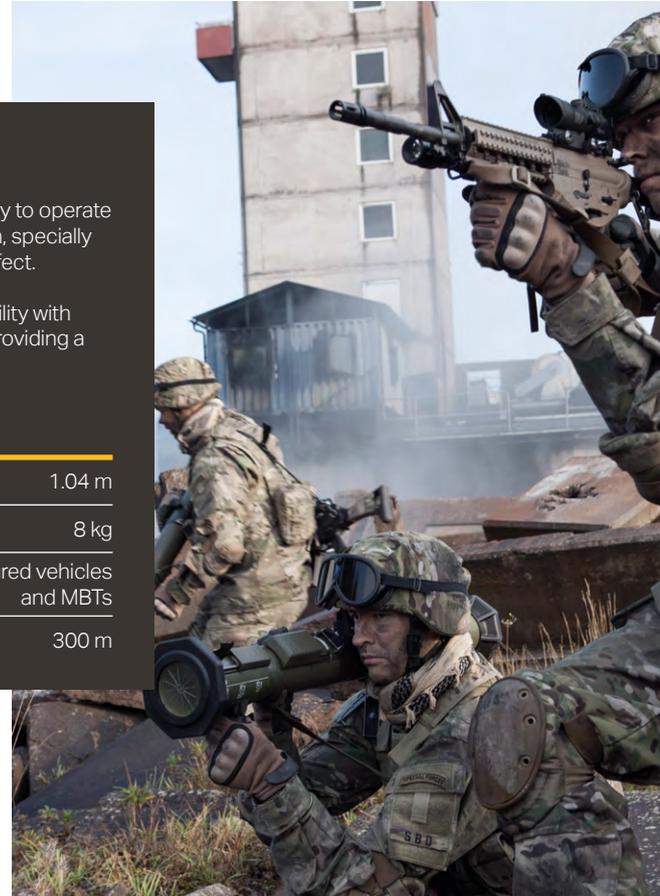
## AT4CS RS

The AT4CS RS anti-armour weapon is easy to operate and has a unique bi-metal warhead design, specially developed to maximise behind-armour effect.

The weapon offers confined space capability with improved insensitive munition, while still providing a powerful and robust launch system.

### TECHNICAL DATA

LENGTH	1.04 m
WEIGHT	8 kg
TARGETS	Armoured vehicles and MBTs
EFFECTIVE RANGE	300 m





## AT4CS ER

AT4CS ER is an anti-armour weapon designed to provide extended range and maximum penetration with confined-space capability.

As with most AT4 family weapons, it comes with an integrated red dot sight and additional bracket system.

### TECHNICAL DATA

LENGTH	0.98 m
WEIGHT	8.6 kg
TARGETS	Armoured vehicles and MBTs
RANGES	Integrated sight 400 m Compatible external sight 600 m





## AT4CS AST

AT4CS AST has confined-space capability as well as an integrated red dot sight and additional bracket system.

The AT4CS AST is a weapon optimised for urban combat, capable of defeating multiple target types as well as creating new entry points into buildings.

### TECHNICAL DATA

LENGTH	0.98 m
WEIGHT	9.3 kg
TARGETS	Personnel behind or in structures and bunkers. Light armoured vehicles.
EFFECTIVE RANGE	200 m





## AT4CS HE

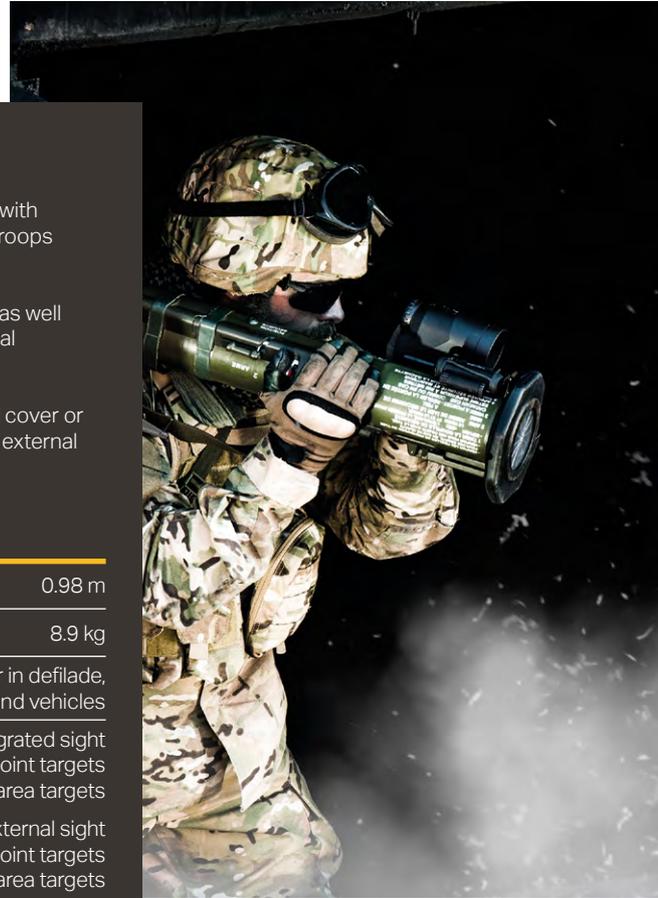
The AT4CS HE provides the single soldier with overmatching firepower to defeat enemy troops at range.

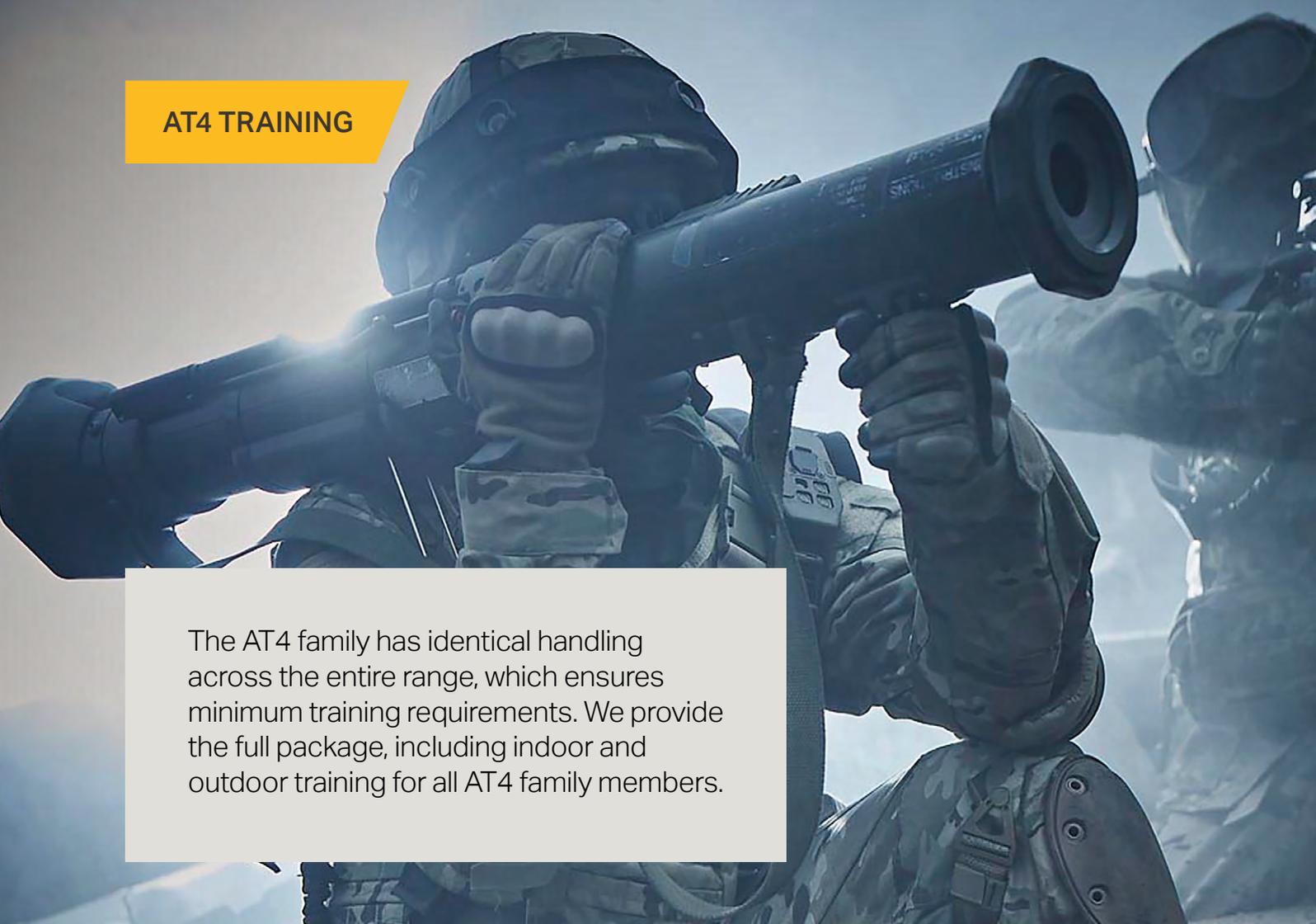
It also includes confined-space capability as well as an integrated red dot sight and additional bracket system.

Airburst mode for defeating troops behind cover or in trenches is possible using a compatible external sight mounted to the weapon.

### TECHNICAL DATA

LENGTH	0.98 m
WEIGHT	8.9 kg
TARGETS	Troops in the open or in defilade, and vehicles
RANGES	Integrated sight 400 m point targets 600 m area targets Compatible external sight 600 m point targets 1,000 m area targets

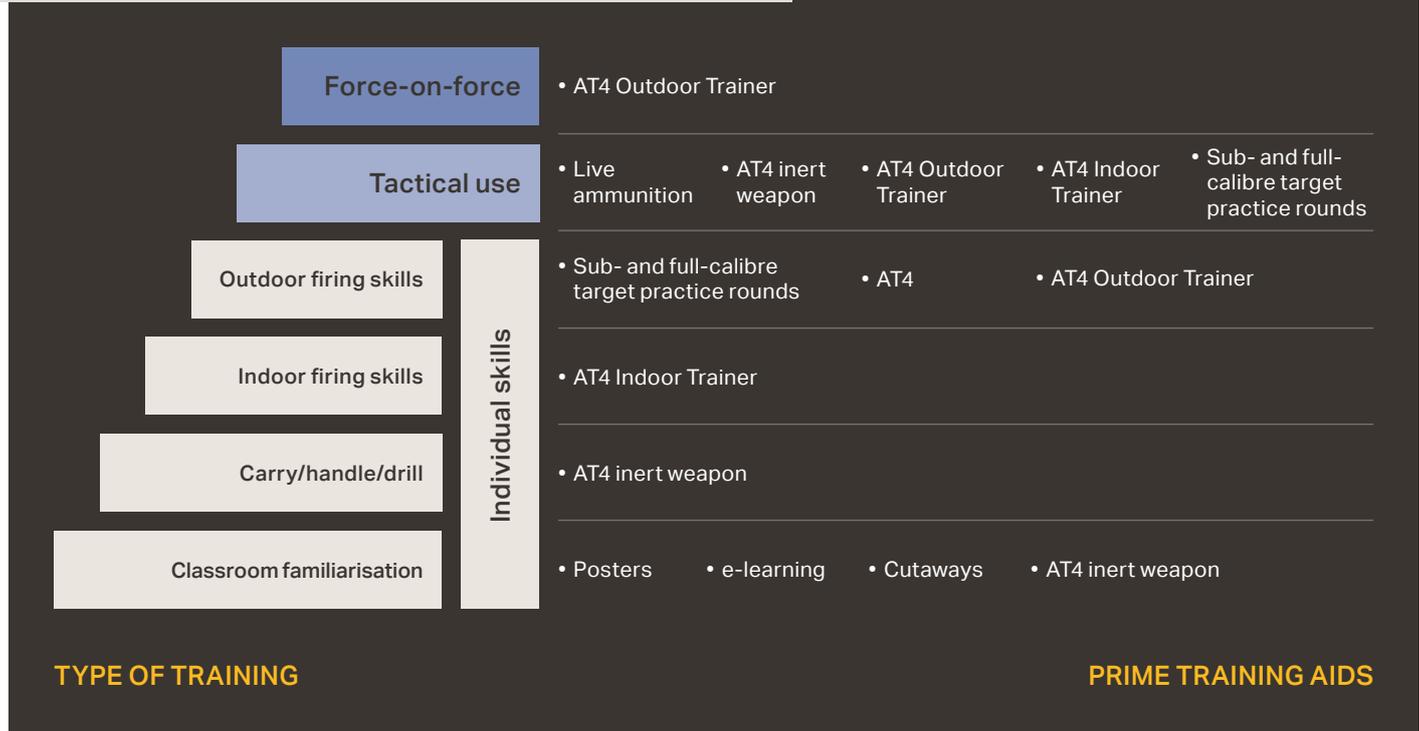


A soldier in camouflage gear is aiming an AT4 rocket launcher. The soldier is wearing a helmet and gloves. The background is a bright, hazy sky. Another soldier is visible in the background, also aiming a rocket launcher.

## AT4 TRAINING

The AT4 family has identical handling across the entire range, which ensures minimum training requirements. We provide the full package, including indoor and outdoor training for all AT4 family members.

# SAAB'S AT4 SYSTEM TRAINING STAIRCASE



**TYPE OF TRAINING**

**PRIME TRAINING AIDS**

## AT4 OUTDOOR TRAINER

The AT4 outdoor simulators offer the realism and experience needed to make the right decisions in real combat.

Transparent and with the correct form, fit and function, take gunners as close to live firing as they can get.





## AT4 B

The AT4 system offers a 9 mm version designed to fully replicate the handling of the real weapon. AT4 B provides realistic handling and target practice training for gunners.

### TECHNICAL DATA

LENGTH	0.98 m
WEIGHT	8.9 kg
TRAINING RANGE	300 m





## AT4 TP

The AT4 TP provides realistic handling, firing and target practice training for gunners.

### TECHNICAL DATA

LENGTH 0.93 m

WEIGHT 8.6 kg

RANGES Integrated sight 400 m  
Compatible external sight 600 m



## AT4 INDOOR TRAINER

This IDT replicates the AT4 family's flexible capabilities for a wide range of targets and scenarios.

Available as studio with common screen, stand-alone and networked gunnery units.





CARL-GUSTAF® SYSTEM





The Carl-Gustaf system is an unparalleled and supremely successful solution to the challenges faced by ground forces.

This multi-role system gives dismounted soldiers the ability to deal with multiple challenges on the modern battlefield.

## CARL-GUSTAF® WEAPON

A soldier in full combat gear, including a helmet and camouflage uniform, is shown from a low angle aiming a Carl-Gustaf recoilless rifle. The rifle is mounted on a concrete wall, and the soldier's hands are visible on the weapon. The background shows a clear blue sky and some green foliage.

The Carl-Gustaf weapon has been designed with soldiers and armed forces in mind, because we understand the need for a smart solution that can handle any tactical scenario.



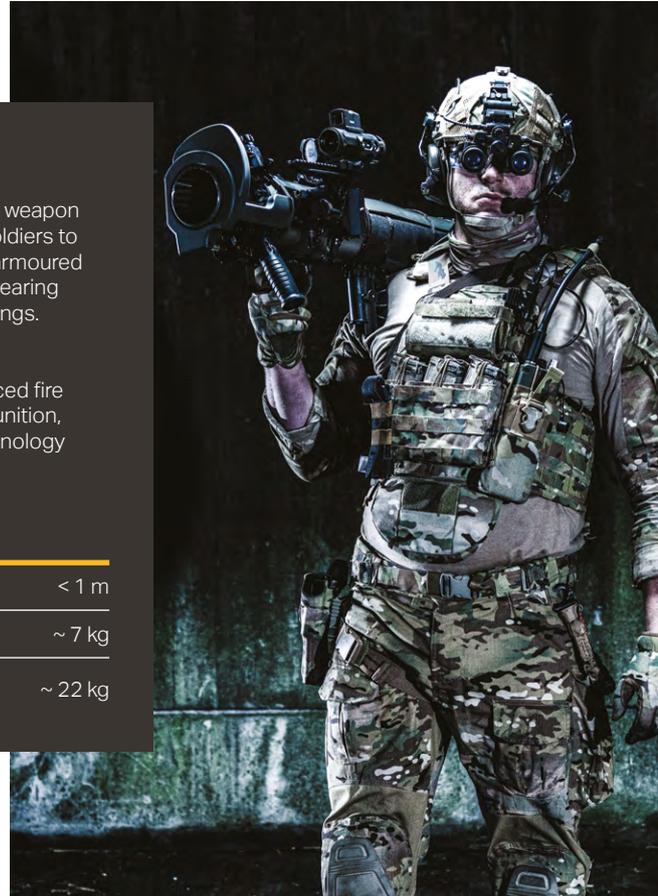
## CARL-GUSTAF M4

The lightweight, multi-role Carl-Gustaf M4 weapon increases tactical flexibility by enabling soldiers to deal with any situation, from neutralising armoured vehicles or enemy troops in defilade, to clearing obstacles and engaging enemies in buildings.

Built with future requirements in mind, the Carl-Gustaf M4 is compatible with advanced fire control devices and programmable ammunition, ensuring your forces have advanced technology at their fingertips.

### TECHNICAL DATA

LENGTH	< 1 m
WEIGHT	~ 7 kg
LOGISTIC CONTAINER (PACKED WITH ACCESSORIES)	~ 22 kg





## CARL-GUSTAF® SIGHTS

The broad offering of sights ensures maximum effect in any tactical situation, with a range of sophisticated options – open sight, red dot sight, telescopic sight and advanced fire control device – increasing flexibility for the user.

## FCD 558

When every shot counts, the Fire Control Device (FCD) 558 provides ground forces with the superior accuracy they need.

The FCD 558 is compatible with all legacy ammunition, as well as new Firebolt technology. When used with Firebolt-compatible ammunition, the FCD 558 obtains data from the chambered round, such as round type and propellant temperature, and combines this with target distance entered by the operator to determine the best trajectory, greatly enhancing the likelihood of a first-round hit.



A soldier in white winter camouflage gear is aiming a Carl-Gustaf recoilless rifle in a snowy environment. The soldier is wearing a white helmet with a night vision device and a white jacket. The rifle is mounted on a tripod and has a large white cylindrical component. The background is a snowy, rocky terrain.

## CARL-GUSTAF® AMMUNITION

The Carl-Gustaf system's combat flexibility comes from its varied range of ammunition – whether you want to destroy a structure or vehicle, or illuminate a tactical area.

## 84 MM HEAT 551

The rocket-assisted HEAT 551 allows dismounted soldiers to defeat the majority of armoured vehicles and MBTs in side or rear aspect.

### TECHNICAL DATA

WEIGHT	3.2 kg
TARGETS	Armoured vehicles and MBTs
EFFECTIVE RANGE	700 m



## 84 MM HEAT 551C RS

The rocket-assisted HEAT 551C RS is an evolution of HEAT 551, with improved insensitive munition properties and significant behind-armour effect.

It can defeat the majority of armoured vehicles and MBTs in side or rear aspect.

### TECHNICAL DATA

WEIGHT	3.5 kg
TARGETS	Armoured vehicles and MBTs
EFFECTIVE RANGE	700 m





## 84 MM HEAT 751

The tandem warhead of HEAT 751 neutralises the effect of explosive reactive armour (ERA) tiles fitted to a target.

It then initiates the HEAT warhead to penetrate the target's main armour.

### TECHNICAL DATA

WEIGHT	3.8 kg
TARGETS	Armoured vehicles and MBTs with ERA
EFFECTIVE RANGE	700 m



## 84 MM HEAT 655 CS

HEAT 655 CS is designed to allow the soldier to engage armoured vehicles and MBTs in side or rear aspect from confined spaces during urban warfare in built-up areas.

The warhead creates high penetration in combination with a devastating behind-armour effect.

### TECHNICAL DATA

WEIGHT	4.8 kg
TARGETS	Armoured vehicles and MBTs
EFFECTIVE RANGE	300 m





## 84 MM ASM 509

The enhanced explosive of ASM 509 neutralises enemy troops in buildings and structures through high-pressure blast effects.

The round can be fired in two modes; Impact Mode (I) for destroying walls or light-armoured vehicles, or Delay Mode (D) for defeating enemies behind walls or fortifications.

### TECHNICAL DATA

WEIGHT	4.2 kg
TARGETS	Structures and enemies protected by structures
EFFECTIVE RANGE	300 m





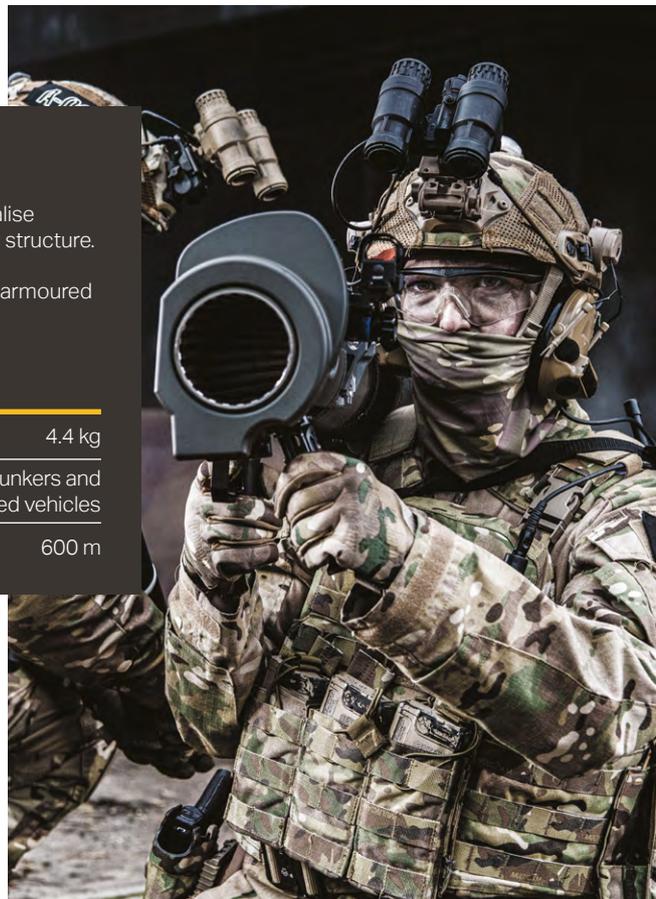
## 84 MM MT 756

The tandem warhead of MT 756 will neutralise enemy troops inside a building or behind a structure.

It is also powerful enough to take out light-armoured vehicles.

### TECHNICAL DATA

WEIGHT	4.4 kg
TARGETS	Structures, bunkers and light-armoured vehicles
EFFECTIVE RANGE	600 m



## 84 MM HEDP 502/502 RS

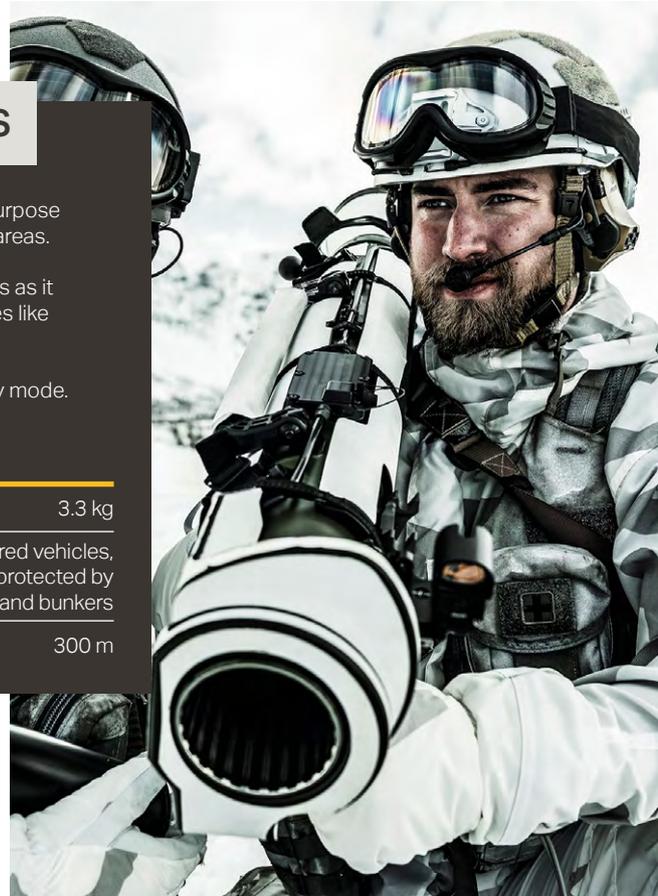
This fin-stabilised, high-explosive, dual-purpose round is optimised for fighting in built-up areas.

It is as effective against armoured vehicles as it is against enemies protected by structures like sandbags, brick and wooden walls.

The round has both an impact and a delay mode.

### TECHNICAL DATA

WEIGHT	3.3 kg
TARGETS	Armoured vehicles, and enemies protected by structures and bunkers
EFFECTIVE RANGE	300 m



## 84 MM HE 448

HE 448 is a powerful high-explosive round that levels up ground forces' effectiveness against enemies wearing body armour. As with the FCD 558, with which it can exchange information, it also benefits from using advanced fire control devices.

The multi-role fuze can be used in direct-fire mode or in airburst mode. Compared to its predecessor, which contained 800 steel balls, the HE 448 contains around 4,000 tungsten pellets, greatly improving the effectiveness of every shot.

### TECHNICAL DATA

<b>WEIGHT</b>	2.7 kg
<b>TARGETS</b>	Protected and unprotected enemies, and soft-skinned targets, including vehicles
<b>EFFECTIVE RANGE</b>	1,500 m



## 84 MM HE 441D/441D RS

HE 441D provides the infantry squad with its own artillery firepower to suppress or defeat enemy troops at range, using either impact or airburst initiation of the warhead.

The simple setting of a desired airburst range on the fuze improves warhead effectiveness against enemy troops behind cover or in trenches.

### TECHNICAL DATA

<b>WEIGHT</b>	3.2 kg
<b>TARGETS</b>	Troops in the open or in defilade, and soft-skinned vehicles
<b>RANGES</b>	1,300 m point targets 1,250 m area targets



## 84 MM ADM 401

ADM 401 combats enemy troops in the open and soft-skinned vehicles by launching a cluster of flechettes.

It is ideal for close-combat area defence.

### TECHNICAL DATA

WEIGHT	2.7 kg
TARGETS	Enemy troops in the open and soft-skinned vehicles
EFFECTIVE RANGE	100 m

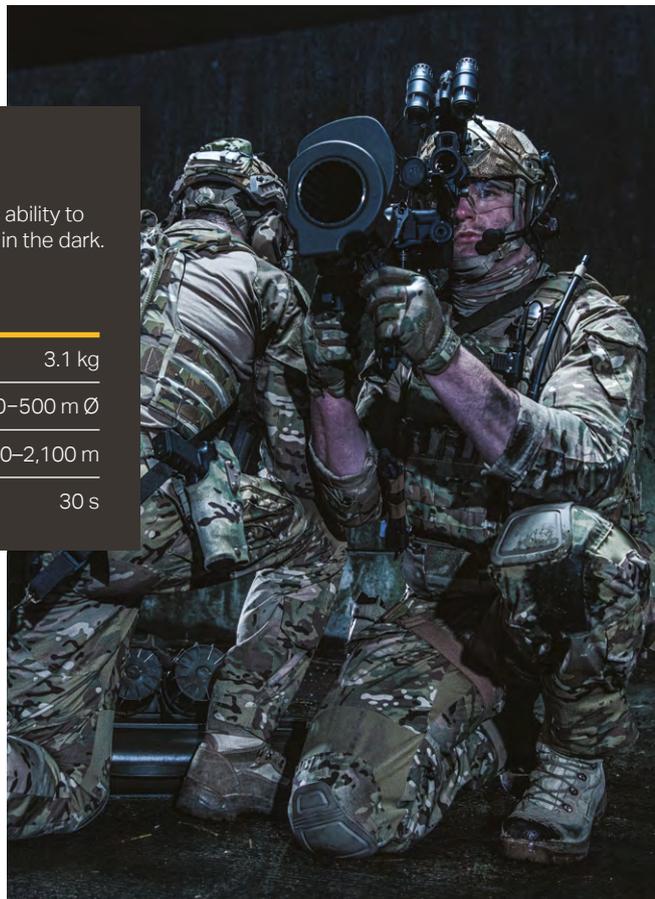


## 84 MM ILLUM 545C

ILLUM 545C offers dismounted troops the ability to illuminate the battlefield during operations in the dark.

### TECHNICAL DATA

WEIGHT	3.1 kg
ILLUMINATED AREA	400–500 m Ø
EFFECTIVE RANGE	300–2,100 m
ILLUMINATION TIME	30 s



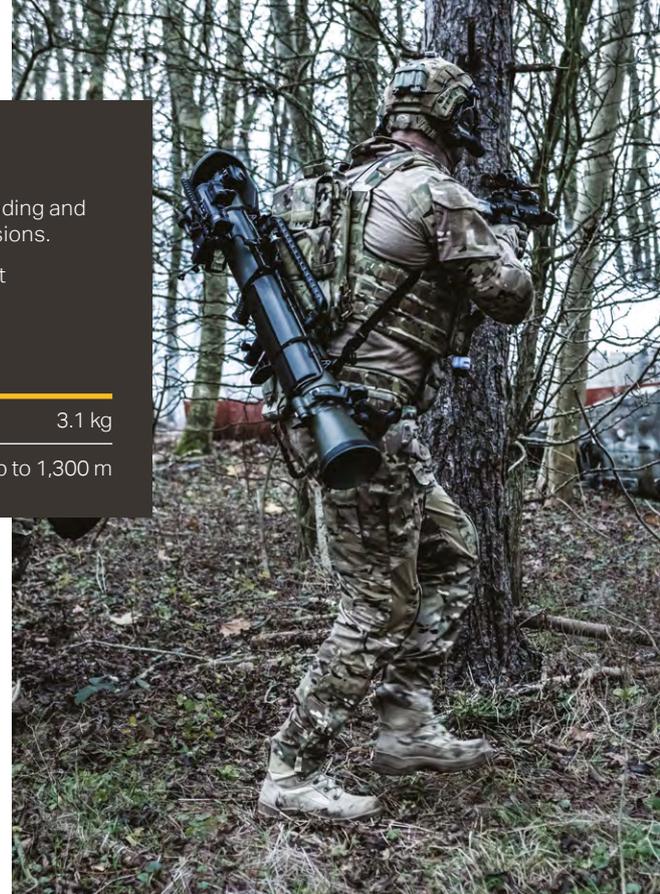
## 84 MM SMOKE 469C

SMOKE 469C is an effective tool for blinding and screening targets, and for spotting missions.

The round provides a significant amount of instant smoke upon impact.

### TECHNICAL DATA

WEIGHT	3.1 kg
EFFECTIVE RANGE	Up to 1,300 m





## CARL-GUSTAF® TRAINING

The Carl-Gustaf training systems prepare forces for any situation. Sub-calibre trainers and full-calibre practice rounds and simulators are included to ensure all training requirements are met.

## TRAINING

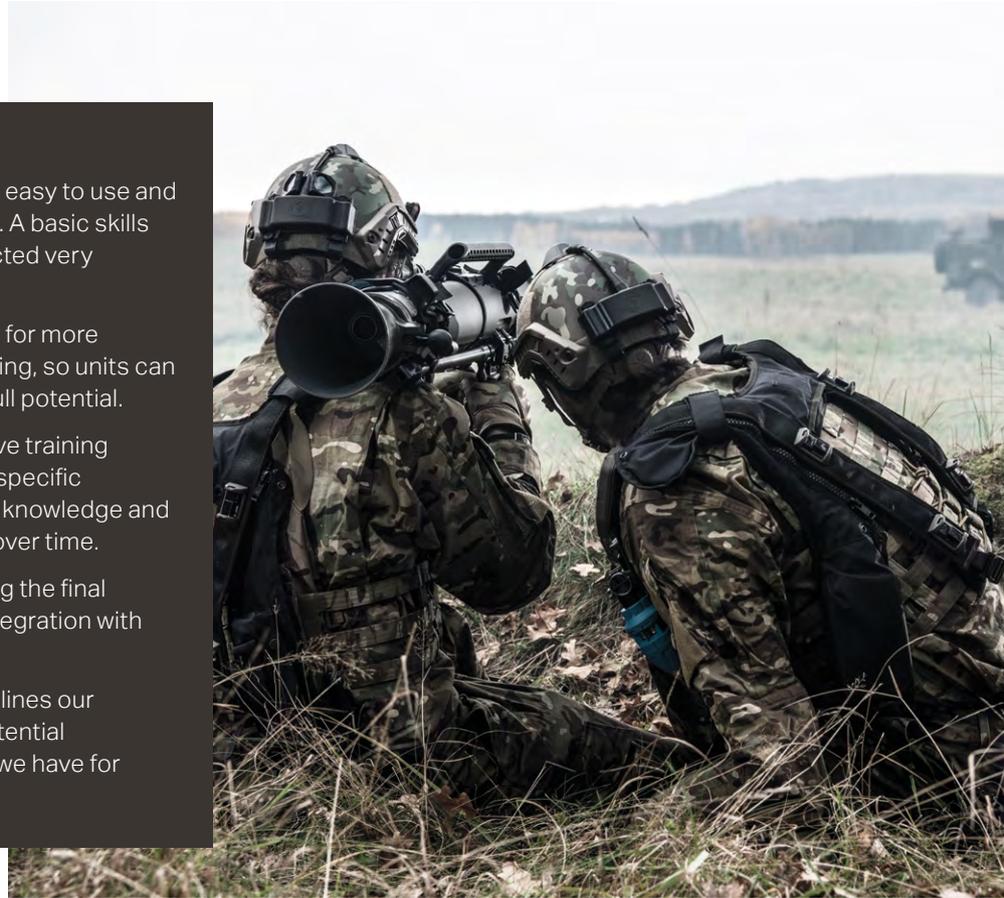
The Carl-Gustaf system is intuitive, easy to use and requires limited basic skills training. A basic skills training programme can be conducted very cost-effectively.

We understand that there is a need for more advanced and collective skills training, so units can use the Carl-Gustaf system to its full potential.

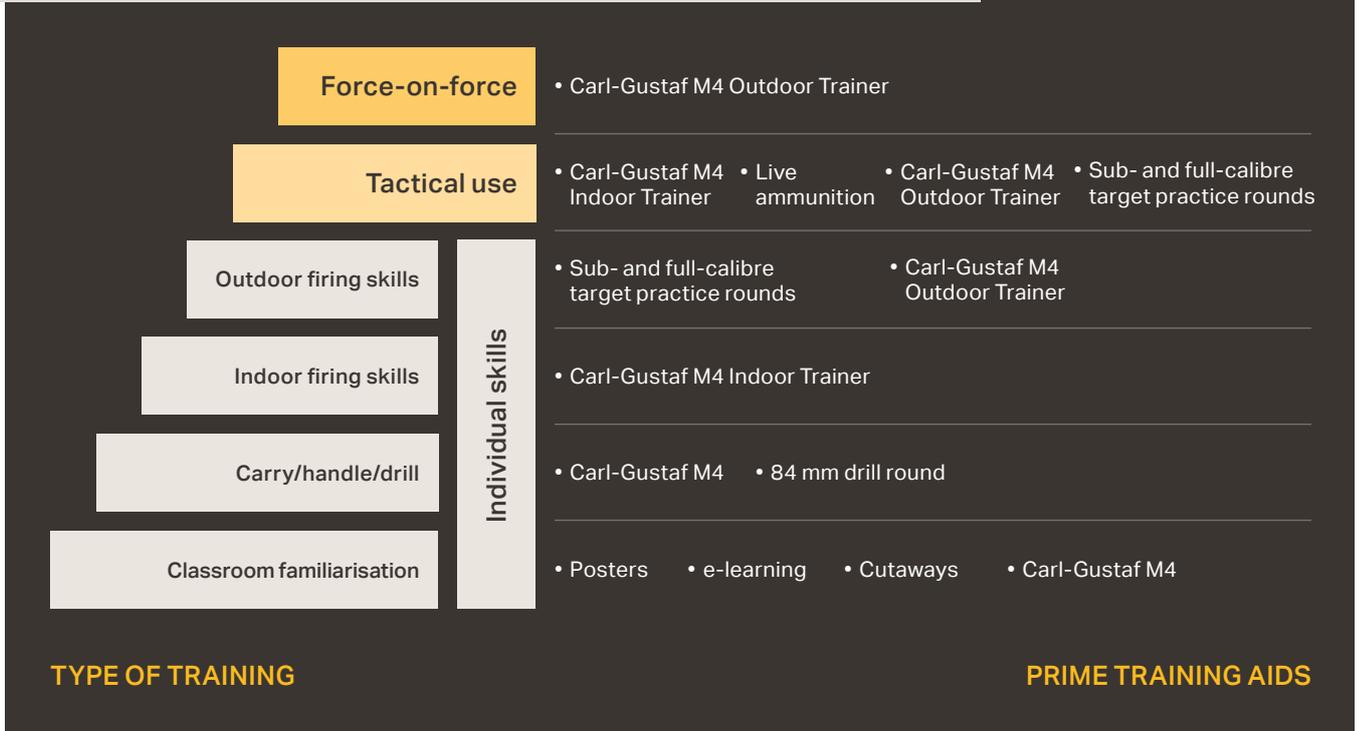
Therefore, we offer a comprehensive training package, tailored to different user-specific conditions, to achieve the required knowledge and skills, as well as maintain the skills over time.

We also offer our support in tailoring the final training solution and, if required, integration with other in-service training systems.

The following training staircase outlines our offer, providing an overview of a potential training programme and what aids we have for different situations.



## SAAB'S CARL-GUSTAF SYSTEM TRAINING STAIRCASE



## CARL-GUSTAF M4 INDOOR TRAINER

The M4 IDT supports training, from basic gunnery to complex combat-like scenarios.

Available as studio with common screen, stand-alone and networked gunnery units.

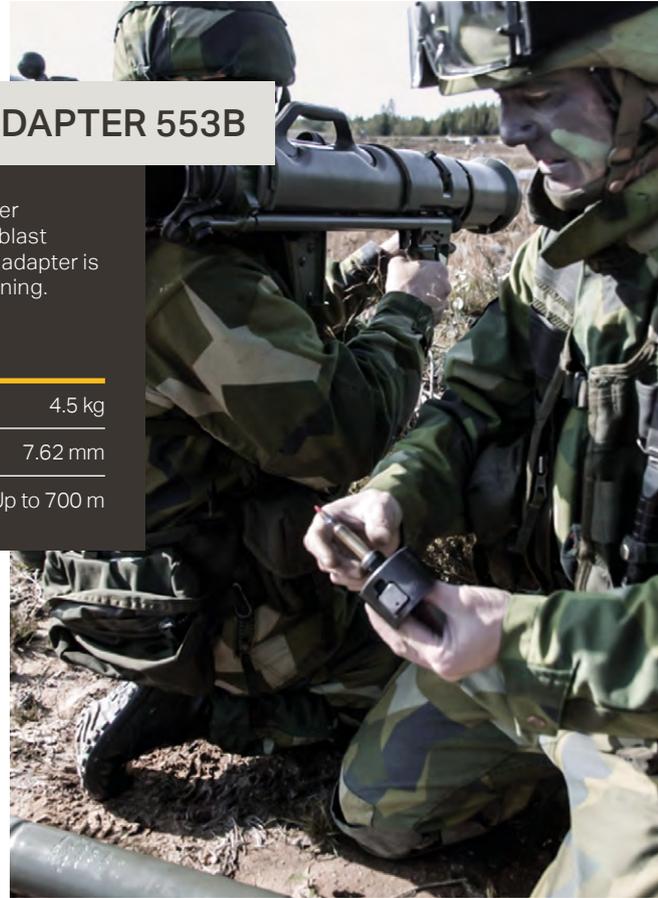


## 7.62 MM SUB-CALIBRE ADAPTER 553B

With its specially designed 7.62 mm tracer ammunition and the ability to use a backblast simulation charge, the sub-calibre 553B adapter is a cost-effective solution for gunnery training.

### TECHNICAL DATA

WEIGHT	4.5 kg
CALIBRE	7.62 mm
TRAINING RANGE	Up to 700 m

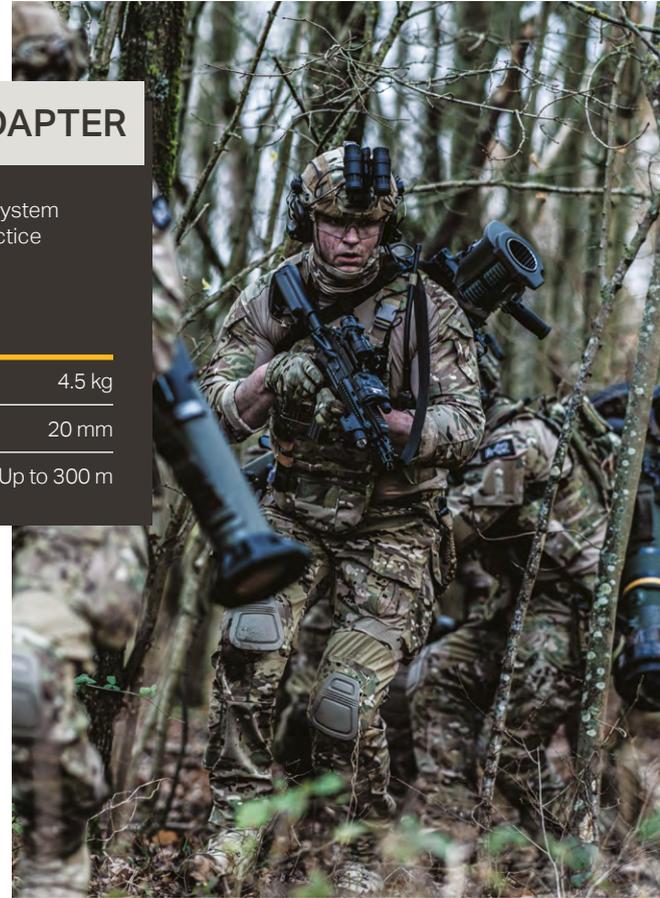


## 20 MM SUB-CALIBRE ADAPTER

The 20 mm sub-calibre adapter training system provides realistic handling and target practice training for gun crews.

### TECHNICAL DATA

WEIGHT	4.5 kg
CALIBRE	20 mm
TRAINING RANGE	Up to 300 m



## 84 MM TPT 141

The full-calibre target practice tracer inert round is a cost-effective training solution, offering all the firing properties of Carl-Gustaf ammunition.

It is fitted with a tracer that is visible throughout its trajectory.

### TECHNICAL DATA

WEIGHT	2.5 kg
TRAINING RANGE	300 m



## 84 MM TP 552

The full-calibre target practice inert round provides cost-effective training for firing Carl-Gustaf rocket-assisted ammunition.

### TECHNICAL DATA

WEIGHT	3.2 kg
TRAINING RANGE	700 m



## CARL-GUSTAF OUTDOOR TRAINER

The Carl-Gustaf outdoor versions place soldiers as close to live firing as they can get. A detailed ballistics table with a temperature index replicates live ammunition behaviour.

The solutions include procedural and realistic gunner and loader training, and can use HE ammunition to train airbursts on multiple targets.





## CARL-GUSTAF® SUPPORT

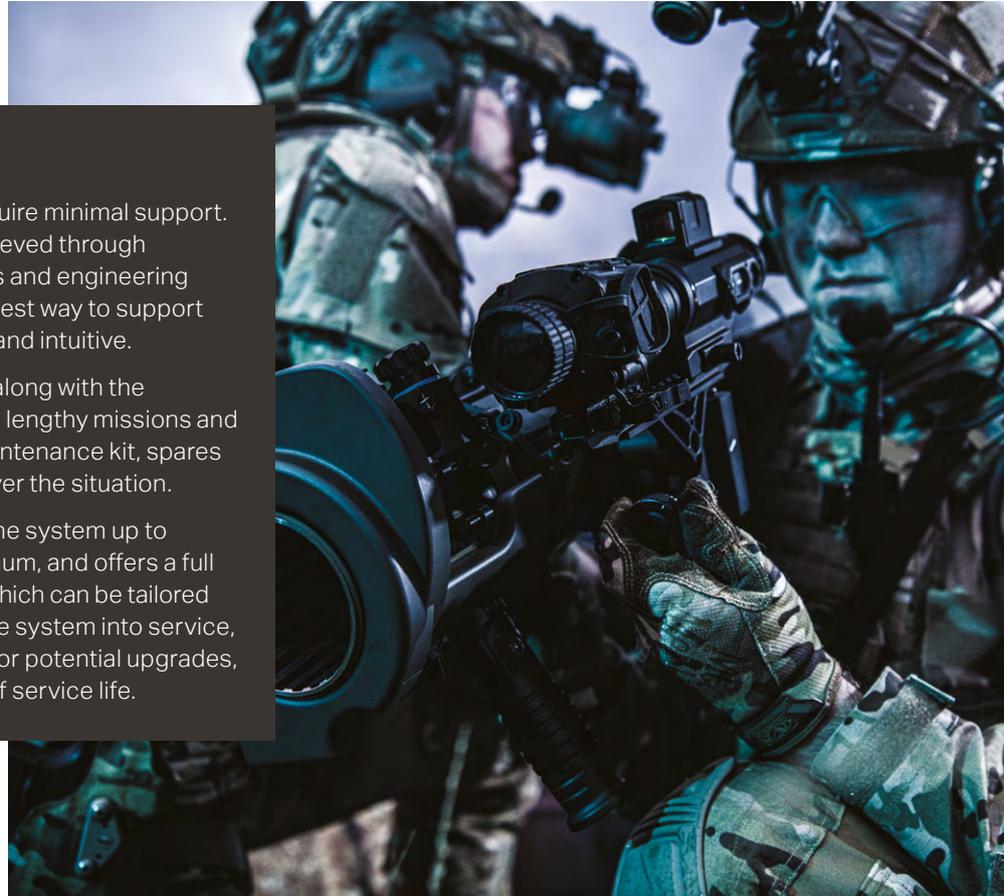
Support doesn't stop at ownership of the Carl-Gustaf system. We ensure users benefit from ongoing system development and updates as global requirements evolve over generations of product iterations.

## SUPPORT

The Carl-Gustaf is designed to require minimal support. Integrated logistics support is achieved through both close co-operation with users and engineering based on the philosophy that the best way to support troops is to keep solutions simple and intuitive.

The weapon is delivered in a case along with the necessary accessories to support lengthy missions and peacetime training, including a maintenance kit, spares and the tools to keep going whatever the situation.

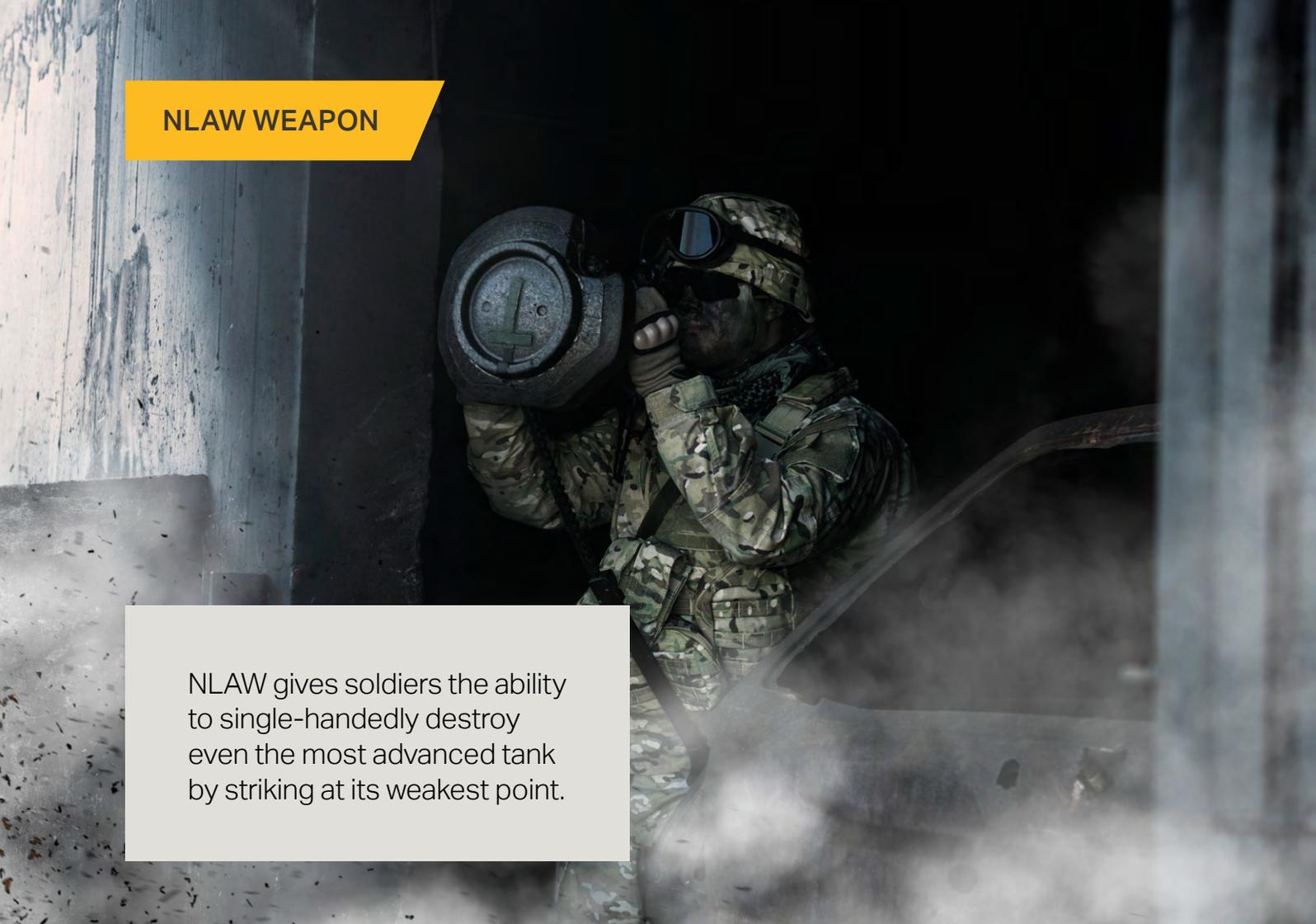
Saab has the experience to keep the system up to date and life cycle costs to a minimum, and offers a full in-service support (ISS) package, which can be tailored as required. This covers bringing the system into service, refreshment training and support for potential upgrades, through to what is needed at end of service life.



A soldier in full combat gear, including a camouflage helmet and goggles, is shown in profile aiming a large, black anti-tank missile launcher (NLAW). The soldier is wearing a scarf and has a focused expression. The background is a blurred, dusty or smoky environment, suggesting a combat zone. The overall tone is serious and professional.

NLAW

Known as a true tank killer, NLAW gives infantry troops the advantage over armoured vehicles in all environments, including built-up areas.

A soldier in full camouflage gear, including a helmet and goggles, is shown in profile, aiming a large, cylindrical Next-Generation Anti-Aircraft Weapon (NLAW) with both hands. The soldier is positioned in a dark, industrial environment, possibly inside a vehicle or a bunker, with a concrete wall visible on the left. The lighting is dramatic, highlighting the soldier's gear and the weapon against a dark background. A yellow banner is located in the top left corner, and a white text box is in the bottom left corner.

## NLAW WEAPON

NLAW gives soldiers the ability to single-handedly destroy even the most advanced tank by striking at its weakest point.



## NLAW

NLAW is a single-soldier missile system that defeats any MBT with just one shot, by striking it from above.

NLAW empowers troops to stop and destroy almost any target in one shot, with its selectable Overfly Top Attack (OTA) against armoured targets and Direct Attack (DA) for soft-skinned vehicles.

### TECHNICAL DATA

<b>WEIGHT</b>	<13 kg
<b>GUIDANCE PRINCIPLE</b>	Predicted Line of Sight (PLOS)
<b>TARGETS</b>	All existing MBTs
<b>RANGE</b>	20–800 m

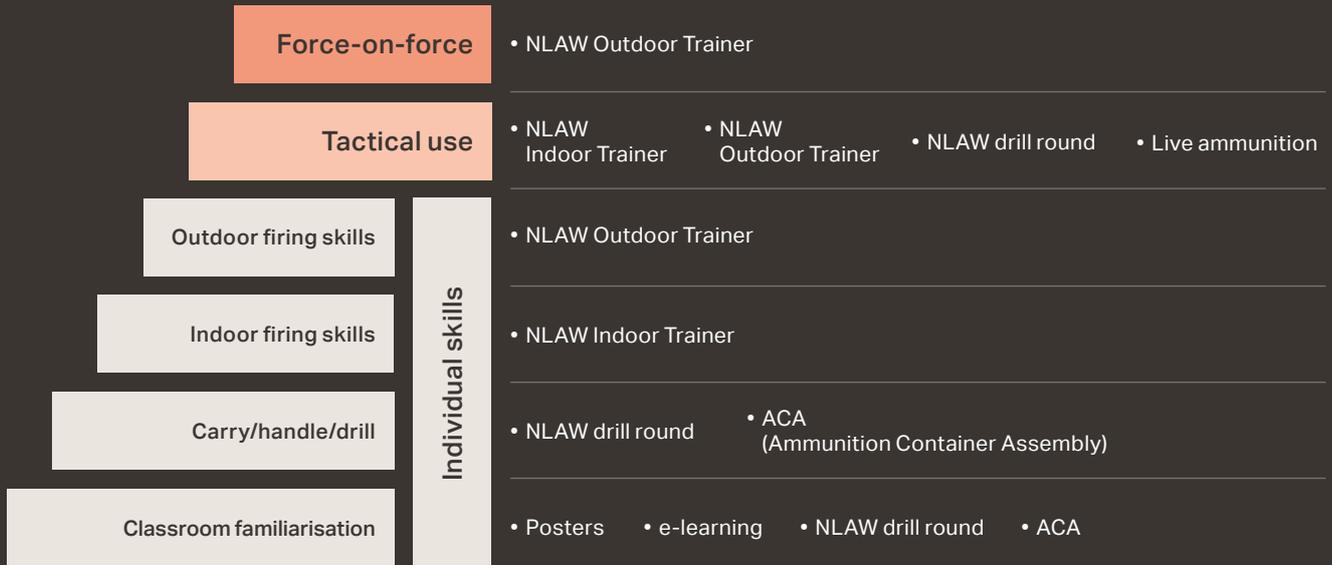


## NLAW TRAINING

A soldier in full combat gear, including a helmet with night vision and thermal imaging equipment, is shown in profile aiming a Next-Generation Light Anti-Aircraft Weapon (NLAW). The soldier is wearing a green and brown camouflage uniform. The background is a blurred forest with green foliage and tree trunks. The NLAW is a large, black, cylindrical weapon with a prominent lens at the front.

NLAW is a true tank killer that requires minimal gunnery training to prepare soldiers to use it safely and accurately when moving into combat.

# SAAB'S NLAW SYSTEM TRAINING STAIRCASE



TYPE OF TRAINING

PRIME TRAINING AIDS

## NLAW INDOOR TRAINER

This IDT of an exact replica offers training with the lightweight, portable system that is best-in-class for dismounted forces operating in all environments, including built-up areas.

With a mixture of easy handling, superb accuracy and power, it trains the operator to eliminate the most advanced tanks.

Available as studio with common screen, stand-alone and networked gunnery units.



## NLAW OUTDOOR TRAINER

An exact replica of NLAW, the solution ensures realistic training with outstanding effects, including weapon properties such as Predicted Line of Sight (PLOS).

The simulator accurately replicates the missile characteristics based on the gunner's performance, and senses the chosen attack mode (Overfly Top or Direct Attack) for the right trajectory and missile behaviour.





Firepower, flexibility and easy handling empower individual soldiers and entire battle forces to take charge in challenging situations. With Saab as your partner, you can maintain superiority in ground combat – today and tomorrow.

[saab.com/groundcombat](https://saab.com/groundcombat)



**SAAB**