

# REPORT

ÅKERS KRUTBRUK

Since 1552

#1 2010 A briefing on Åkers Krutbruk's current affairs

Part of the IBD-group

## WELCOME TO OUR FIRST REPORT!

In this, our first, Report you will learn about the most recent projects and events within Åkers Krutbruk. In our Reports we will try to give you a broad picture of what we do and how we can deliver advanced protection solutions to support your mission.

Åkers Krutbruk's employees are motivated by challenges, and willingly lend their expertise to design the best possible protection for the people who are out on humanitarian and peacekeeping missions.

A good example is the Scania 4G. The protected truck cab is the result of the mixing together of our dedication, expertise, know-how, inventive spirits and the dynamic teamwork of the Åkers Krutbruk staff, and by the vote of confidence from Scania.

We are proud of what we do and hope that you will find it interesting to read more about us in this Report.

Niclas Sahlgren, CEO, Åkers Krutbruk



Photo by: Carl-Erik Andersson



Model Cat D6R

## SCANIA TEAMS UP WITH ÅKERS KRUTBRUK

Åkers Krutbruk has signed a preferred supplier agreement with Scania, the world-leading truck company.

Over the years, Åkers Krutbruk has developed several protection systems aimed for Scania trucks and astonishingly high levels of protection have been obtained on the modern civilian truck. The 4G Truck Protection was launched at the Eurosatory 2008 and has since then won the award for "Best New Armoured Vehicle 2009" at the IAV conference, former LAV conference, in London. The two companies will now cooperate even closer in the development of advanced truck protection.

*"We are proud that we have been selected as preferred supplier to Scania – a true recognition of quality and commitment."*

Niclas Sahlgren, CEO, Åkers Krutbruk

## ÅKERS KRUTBRUK PROTECTS CAT DOZER

Åkers Krutbruk enters cooperation with Pon Equipment to armour bulldozers, a basic tool of combat engineering.

A bulldozer is a heavy piece of earthmoving equipment which uses a front-mounted 'dozer' blade to push soil forward and create a level surface for construction sites and roads. The driver's compartment is protected by transparent armour and ballistic add-on armour plates.

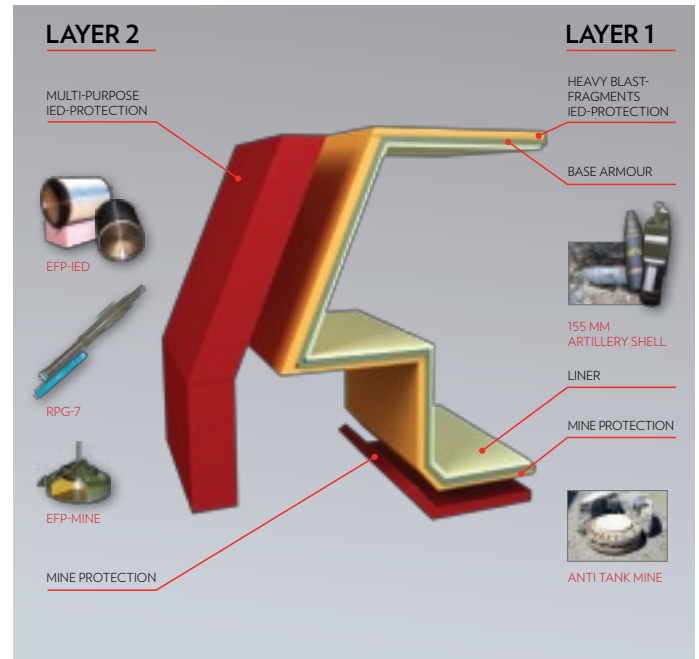
The Cat dozers are already in use in the Swedish Armed Forces and will now be prepared to be part of the Swedish international force. The development and integration work will start immediately.

# ÅKERS KRUTBRUK DESIGNS PROTECTION AGAINST IMPROVISED EXPLOSIVE DEVICES

Åkers Krutbruk's light-weight protection designed against Improvised Explosive Devices meets the requirements of an all-around survivability concept.

Over the last few years armed forces have seen an increase in threats against armoured vehicles such as Improvised Explosive Devices (IEDs) and Explosively Formed Projectiles (EFPs). The change from a frontal to a spherical attack scenario requires an all-around survivability concept. A protection concept that meets these requirements has been introduced by Åkers Krutbruk and the IBD-group. The concept is called the Evolution Survivability Concept.

Åkers Krutbruk's protection against IEDs is designed to defeat heavy blast and fragments from e.g. artillery shells as well as EFPs. The solution can easily be integrated into Armoured Infantry Fighting Vehicles, Armoured Personnel Carriers and Heavy Tanks.



The IED add-on protection works together with the mine protection and is tailored to withstand the harsh environments around the tracks/wheels. The solution has been demonstrated at Åkers Krutbruk recurring Live Firing Days and is currently in service on numerous vehicles in use in theatre.



Sgt Nicklas Gustafsson / Combat Camera - Försvarets Bildbyrå

# ÅKERS KRUTBRUK PROTECTS TOYOTA LANDCRUISERS

Åkers Krutbruk has recently won a contract in a public procurement regarding the delivery of protection for Toyota Landcruisers.

The technology solution for the protected element of the Toyota Landcruiser is based on the next generation of energy absorbing composites optimized through extensive test procedures at Åkers Krutbruk. We work closely with the skilled R&D team at our parent company, IBD Deisenroth Engineering, to create customized protection with sophisticated materials. The end result is a light-weight ballistic protection designed for protected commercial vehicles.

# STATE OF THE ART CAB PROTECTION

Åkers Krutbruk's 4G protected Scania truck cab won the award for "Best New Armoured Vehicle 2009" at the defense industry conference "Light & Medium Armoured Vehicles" in London, England.

*"The response to our solution since the launch has been fantastic. In this competition we were up against some major players and winning gives us important international recognition."*  
Niclas Sahlgren, CEO, Åkers Krutbruk

When Åkers Krutbruk launched its 4G Truck Protection for Scania at the Eurosatory 2008 in Paris, an entirely new and unique solution for truck protection entered the market. The solution is designed to meet the threats of modern warfare, such as Improvised Explosive Devices (IEDs). It is a state of the art protection concept; the result of innovative staff working together, combining cutting edge engineering skill with experience and know-how of the service technicians.

At the beginning of the project Scania approached Åkers Krutbruk with a list of requirements regarding the development of the protected cab. It was to:

- have a nonaggressive look to it
- meet certain weight requirements
- meet the legal standards for visibility
- have the highest possible ballistic/IED protection
- be cost-effective.

In addition to the Scania requirements, we analyzed the new advanced IED threats.

## Strategic partnership at the technological frontier

Scania is one of the top five manufacturers of trucks in the world. Seventy thousand trucks leave the factories in Europe and South America every year, and over the past few years several hundreds of them have been protected by Åkers Krutbruk.

*"Without a protected cab we are out of the game in most defense deals. This state of the art protected cab solution, that's easy to order and maintain, will definitely help our chances to win important deals."*

Heikki Fant, Product Manager Defence, Scania

## At work in Afghanistan

When the Dutch military bought 555 trucks from Scania in 2005 they also purchased 262 ballistic sets from Åkers Krutbruk allowing them to protect the personnel while maintaining the trucks' nonaggressive appearance. A civilian looking vehicle is less likely to be attacked in an international hot-zone.



**Kristian Duin**  
Fleet Manager, Defence Material Organization  
in the Dutch military

*"During the two years that the Dutch military has been present in Afghanistan, there have been several attacks on our vehicles with a traditional military look. However, there have been no reported attacks on the Scania protected trucks."*  
states Kristian Duin

According to Kristian Duin, the overall performance of the protected Scania truck during the mission in Afghanistan has been good. Åkers Krutbruk, Scania and the Dutch military have worked together to solve the service issues that have come up, and the users in Afghanistan report that the truck, with a few exceptions, handles like an ordinary truck.

Photo by: Carl-Erik Andersson



# INVESTING FOR THE FUTURE

Åkers Krutbruk has just recently invested in a new versatile gun. With this new gun, aimed for testing, it is possible to simulate IEDs by shooting Fragment Simulating Projectiles (FSPs) at very high speed.

*"The gun is mounted in a stand and we can quickly exchange barrels when we want to test specific ammunition or speed. By doing advanced ballistic tests, in our own facility, the test cycle will be shortened. This results in a more precise protection at lower cost."*

Klas Hedin, R&D Manager, Åkers Krutbruk

Companies and organizations are welcome to rent the Åkers Krutbruk test lab.

## THE RED LINE PROJECTS

Åkers Krutbruk has developed a process to handle an increasing number of Urgent Operational Requirements (UORs) from MODs. The process is called the Red Line projects.

Speed and flexibility is needed to adapt and respond to requirements specific to particular operational environments and emerging threats. MODs complement the planned equipment program with UOR projects.

The most important key factor to be successful is a clear and agreed project directive. With limited time to deliver, the technology must be available off-the-shelf and supplied by stored raw materials. Commercial and technical project leaders need access to decision makers to interact on quick changes and adjustments within the project.

Åkers Krutbruk is using PPS as the practical project steering model. The model is based on experiences and existing standards within the field.

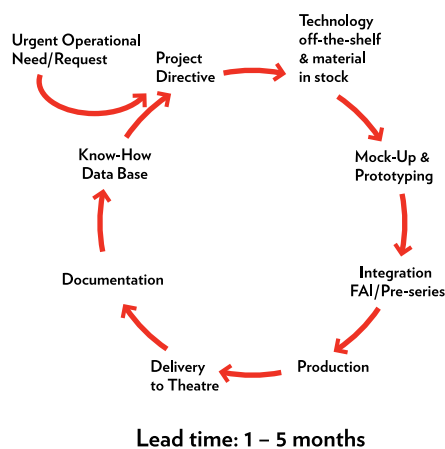


EXHIBIT - VISIT

2010  
EUROSATORY  
PARIS 14 - 18 JUNE 2010

VISIT  
ÅKERS KRUTBRUK  
IN THE  
SWEDISH  
PAVILION

## ÅKERS KRUTBRUK PROTECTION AB - BASIC FACTS

- Founded in 1552 by King Gustav Vasa
- Produced gun powder for over 450 years
- Part of the IBD Deisenroth Engineering family  
- World leader in advanced protection solutions for military vehicles
- Cutting edge R&D department
- State of the art development facility
- Own testing grounds
- ISO-certified (9001:2008 and 14001:2004)

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