Clip-Lok SimPak®

Valtra/MSK cabin

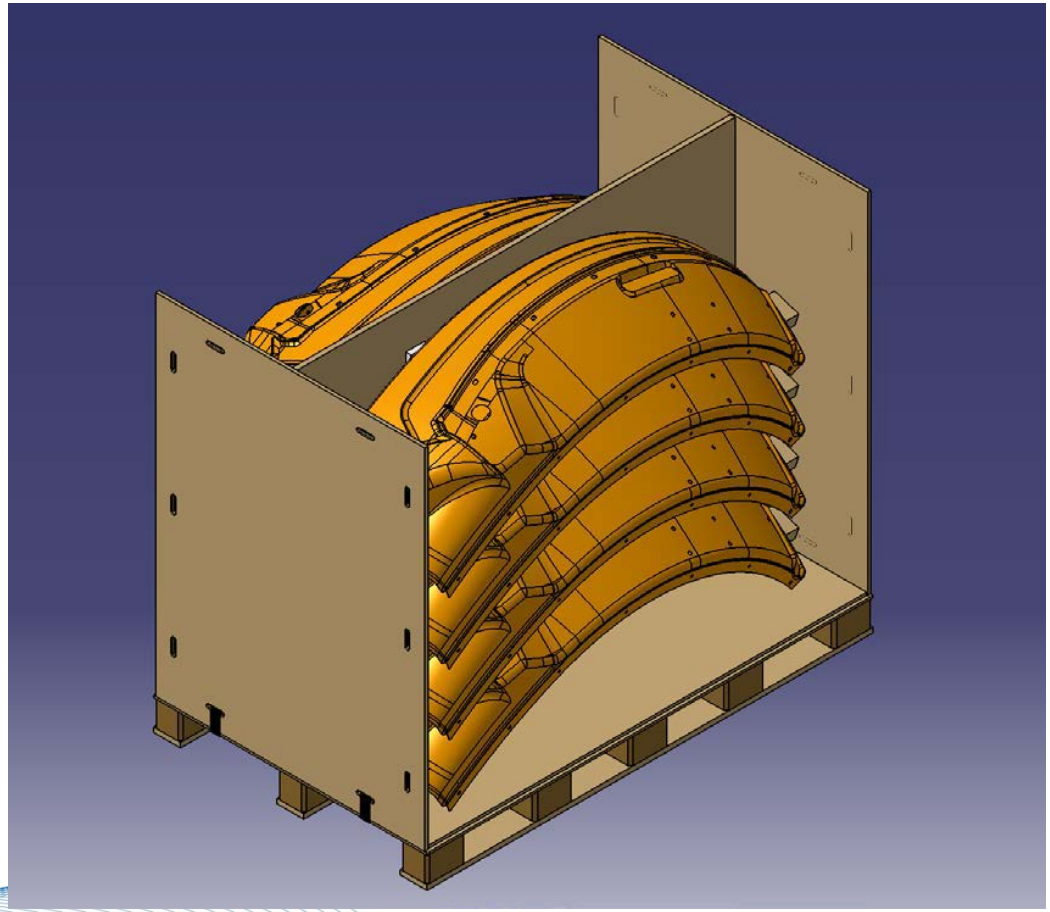
Fender project

Valtra MSK Fender project

- Background
- Valtra in Finland is part of the AGCO.
- Company largest tractor builder in northern Europe.
- Client to CLSS since 2005.
- CLSS has sold 15 models of boxes in various sizes.
- Boxes mainly advanced with complex dunnage such as soft racks, PU and steel.

Clip-Lok SimPak®

Valtra MSK Fender project



Valtra MSK Fender project

- Quality never goes out of style?
- In the past, fender was made of high strenght plastic, very ridgid and forgiving.
- For the next generation of tractors, the CENTURION, it´s decided to use a sheet metal fender.
- Fender is deep drawn by one subcontractor and then sent further to another one caring for the paint.

Valtra MSK Fender project

Valtra MSK Fender project

- After painting, the fender goes in sequence to the cabin assembly line.
- The part is rather delicate both prior and after the painting process.

Valtra MSK Fender project

Valtra MSK Fender project

- The box works like an accordion –all parts are hinged togheter apart from long sides and lid.
- The flat packed height is 400mm
- Dunnage consist of HDPE-brackets onto which parts are hanged.
- Finally a locking mechanism in placed on top.

Valtra MSK Fender project

Clip-Lok SimPak®

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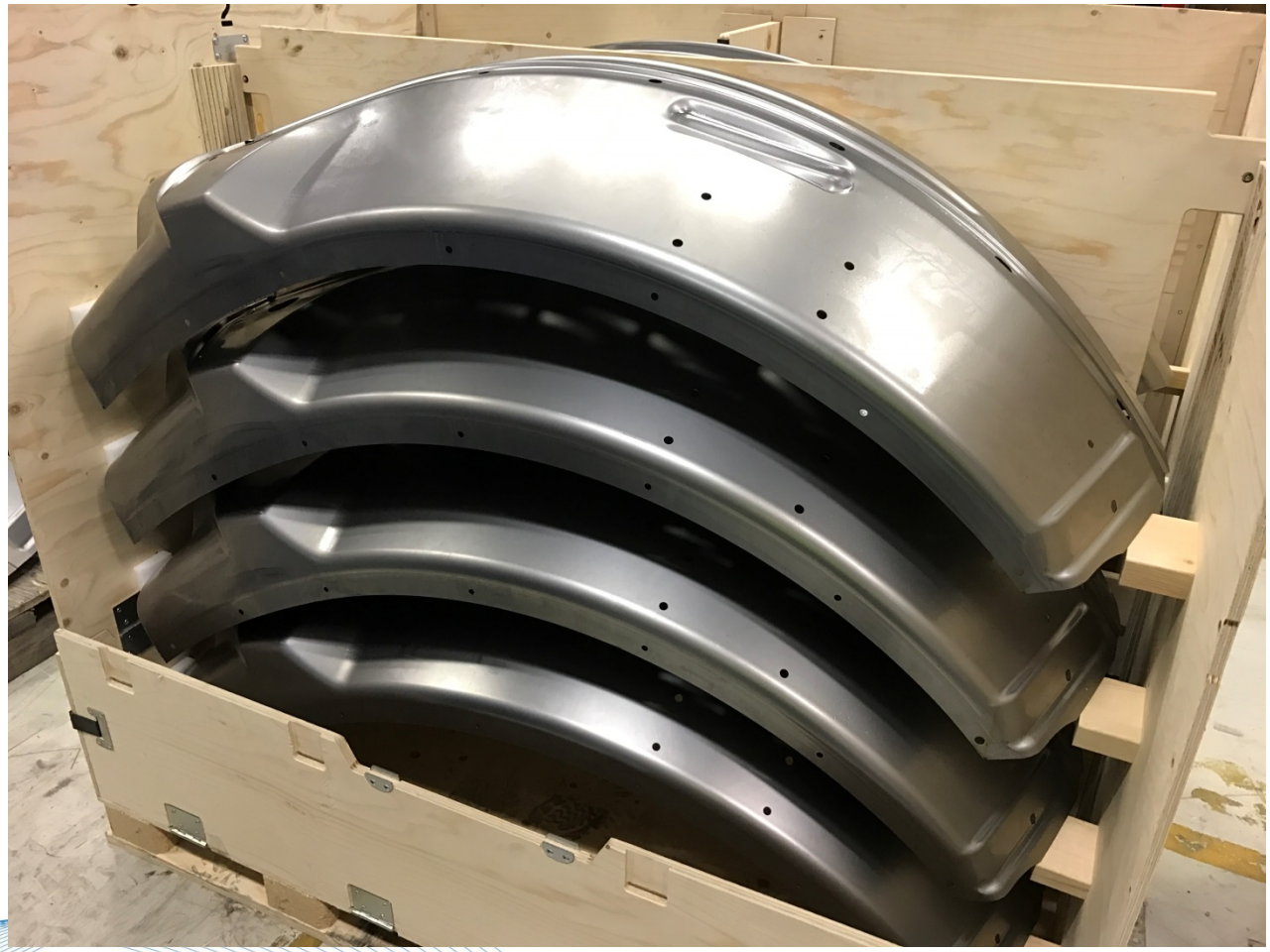

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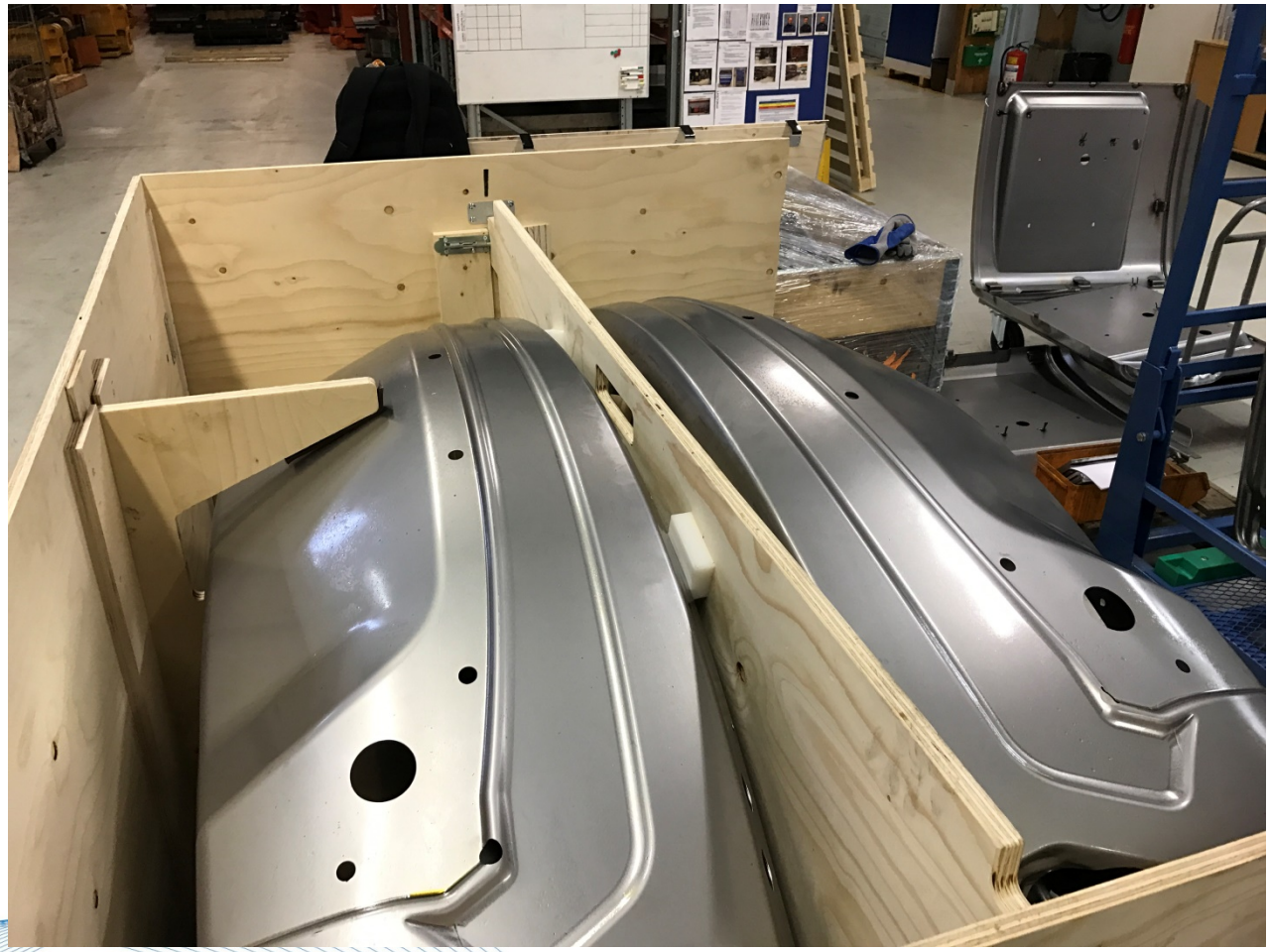
Valtra MSK Fender project



Clip-Lok SimPak®

Valtra MSK Fender project

Valtra MSK Fender project

Why Clip-Lok?

- Product requires a box tight to dust.
- Furthmore the product is better protected than in an open steel rack.
- The rack does as well consist of corner posts minimum 60x60mm which consumes packaging density whereas the Clip-Lok box having corners 2x12mm.
- Smart design(er).

XALT Energy

Lithium Ion Battery Containers

Company Overview

Energy Solutions that Power Innovation

Since its founding, XALT Energy has been at the forefront of the search for lighter, smaller, more efficient and more powerful energy solutions. Using the brightest engineering minds in cutting-edge facilities, we help customers all over the world develop new energy storage applications and solutions based on proven lithium ion chemistry.

XALT Energy unites viable, scalable large-format cell technology with manufacturing expertise, deep market knowledge and a wide range of strategic partners to help fuel our customers' innovations

Our lithium-ion cell technology combines lithium-ion chemistry, low-impedance cell design and world class manufacturing systems to give customers an unprecedented cost/performance advantage over any other technology.

Commercial Transportation Case Study

New Flyer's new electric city buses are equipped with XALT Energy 40Ah high power (HP) cells. These buses, two in the City of Chicago and two in the City of Winnipeg, are outfitted with 28-42 battery modules each containing 48 individual cells. The resulting battery systems provide a compelling value proposition, which according to New Flyer, is what set the XALT Energy technology above competitors' offerings. The XALT Energy cells in New Flyer's buses deliver superior energy density, providing high power and low system weight, as well as outstanding cycle life.

The Xcelsior XE40 electric bus successfully completed the rigorous Altoona test, verifying its safety, structural integrity, reliability, performance, maintainability, noise and fuel economy. This is the first application of its kind to meet the extensive Altoona durability and reliability requirements. The bus was driven 15,000 miles under three different loading conditions and with the addition of seven different stress elements, simulating events likely to occur during transit. The XALT Energy battery packs powering the bus performed flawlessly and exhibited no issues throughout the duration of the test.

Opportunity

- **CHALLENGE:**
  - XHALT currently uses Nefab Containers to ship their batteries that are used to power city buses. Because Nefab only offers stock sizes, the container being used is significantly larger than needed. This forces XALT to cube out trailers rather than weigh them out.
- **SOLUTION:**
  - packIQ / Actionwood 360 has offered our new single use container with the plastic clip
  - BENEFITS:
    - Container Sized to exact product dimensions.
    - Easier and faster to assemble
    - Ability to palletize different components to be used at various locations in factory for packaging optimization.
    - Branding of their logo on the box

NOTES:
- CONTAINER CONSTRUCTED OF .5" OSB WITH .7" OSB BASE

REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL DESIGN	6/7/2017	C.G.

XALT Energy

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
LINEAR: ± .12
ANGULAR: ± 3°

	NAME	DATE
DRAWN	R.V.O.	6/6/2017
CHECKED	R.V.O.	6/6/2017
APPVD	C.Grabbel	6/6/2017
CAGE CODE		

TITLE:
XALT

CONTAINER SIZE
34 X 16 X 13 - I.D.

REV
A

DO NOT SCALE DRAWING

SHEET 1 OF 5

packIQ

XALT Energy

NEFAB → Clip-Lok SimPak®

packIQ

Project Status

- Drawings Submitted
- Box size has been fine tuned.
- 6 Boxes submitted for approval
- Design and Construction approval received Mid August
- Final fit and function testing in process now.
- Upon receipt of product approval, we have been told that we are the new approved supplier and waiting for first P.O.

- Annual usage is 8,000 containers

- NOTE: XALT has asked for our approval to showcase our Clip-Lok box at the upcoming battery expo being held in Novi, Michigan, USA

Clip-Lok SimPak®

Valeo / Tesla

Aluminium cooling multi port tubes

International Sales Meeting

London

September 11th 2017

Valeo / Tesla - Aluminium cooling multi port tubes

Clip-Lok 2P box for transport of aluminium cooling multi port tubes.

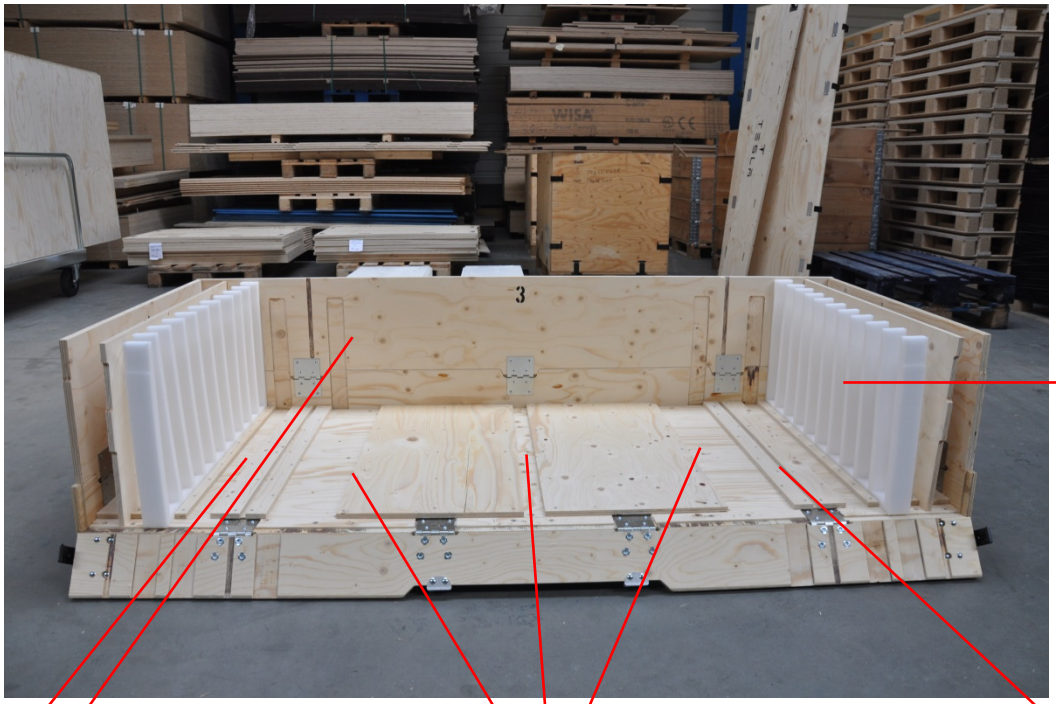
Application:	Cooling of the battery for Tesla Model X	
Dimensions:	External:	1952x857x529
	Internal:	1916x821x409
	Flat pack:	1952x857x240
Dunnage:	Foam construction to handle 3 different length of tubes	
Suppliers:	3 different suppliers from Holland, Dubai and USA	

Valeo / Tesla - Aluminium cooling multi port tubes

Potential: 3200 boxes
Value: US$1.000.000
Competition: triplewall cardboard or wooden one-way box
Pay-back: +2 years
End destination: Tesla Giga Factory, Sparks, Nevada

Valeo / Tesla - Aluminium cooling multi port tubes

Same box can handle 3 different length of aluminium tubes



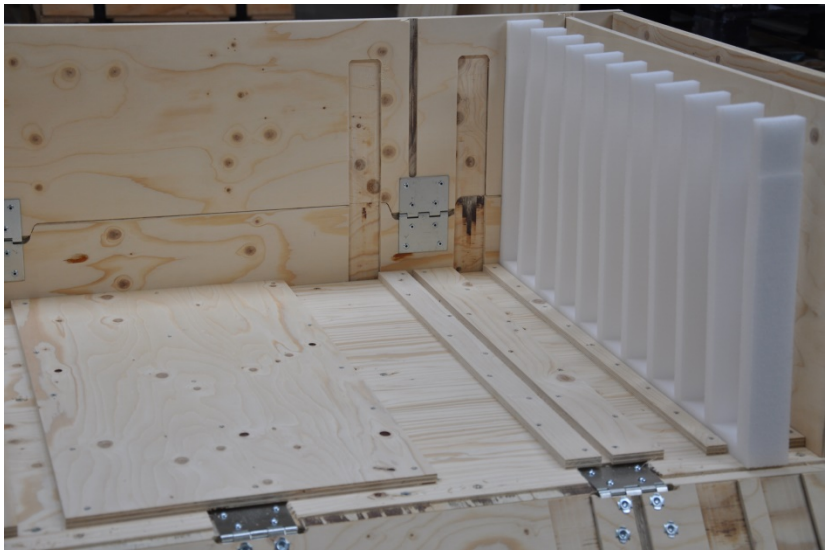
Heavy duty
PE foam 700E

Grooves to position and secure the foam

Grooves for robotic lifting tool to know that the box is empty – false air into the sucktion cups

Groove to position end piece plywood wall

Valeo / Tesla - Aluminium cooling multi port tubes



Clip-Lok SimPak®

Valeo / Tesla - Aluminium cooling multi port tubes

Clip-Lok SimPak®

Snowmobiles

Danish Armed Forces

International Sales Meeting

London

September 11th 2017

Snowmobiles – Danish Armed Forces

Clip-Lok 2P box for transport and storage of snowmobiles

Application:

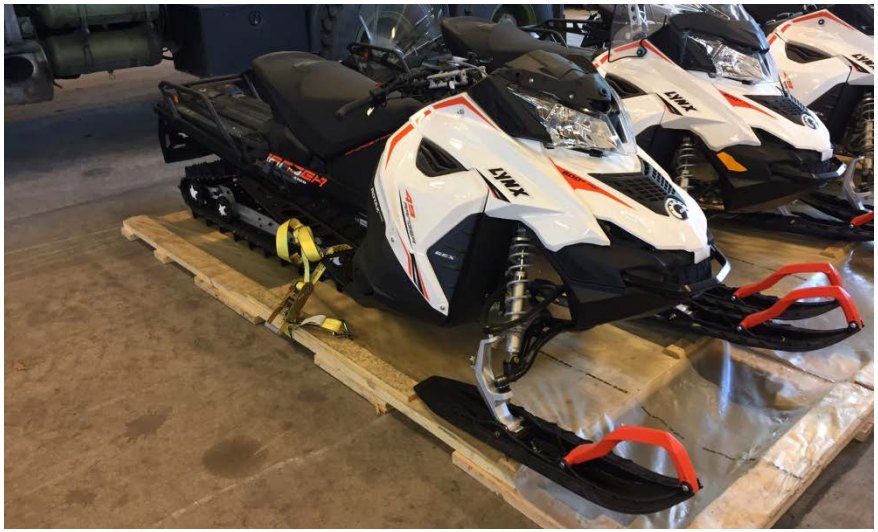
1. Snowmobiles for Special Forces – Rapid deployment
2. Snowmobiles for the Artic Forces – stationary forces as well as for rapid deployment

Dimensions:	External:	3526x1236x1080mm
	Internal:	3550x1260x1209mm

Dunnage: Ramp on end panels to drive into box
Ramp locks for keping ramp in place
Straps and rings for securing the Snowmobile

Snowmobiles – Danish Armed Forces

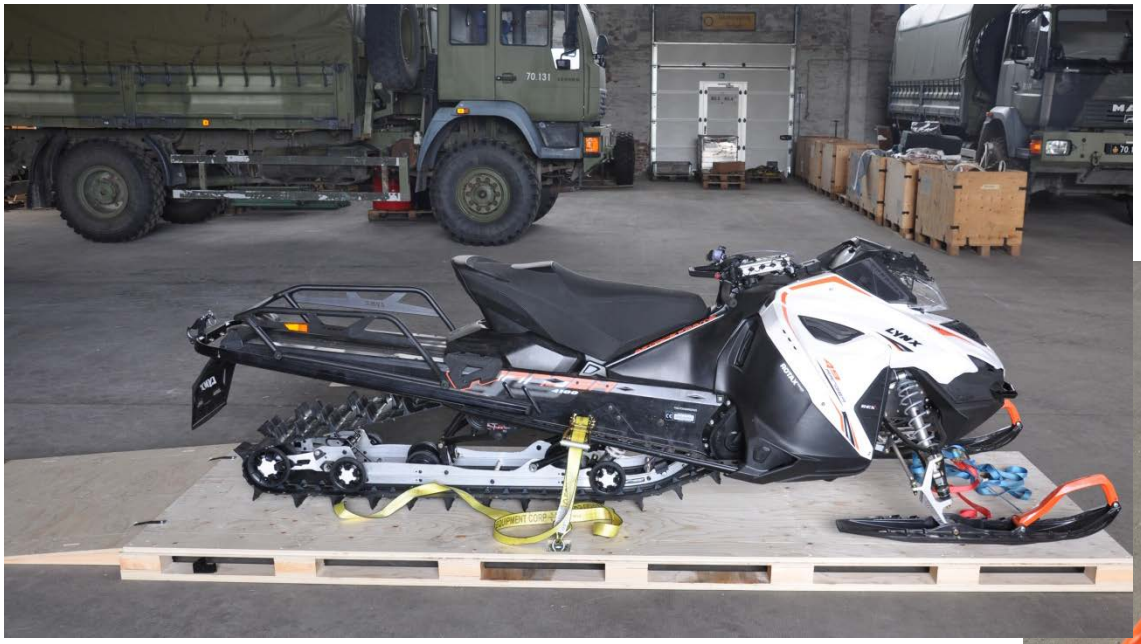
Potential: 70 boxes
Value: €45.000
Competition: Steel racks
Pay-back: Clip-Lok was half price compared to racks



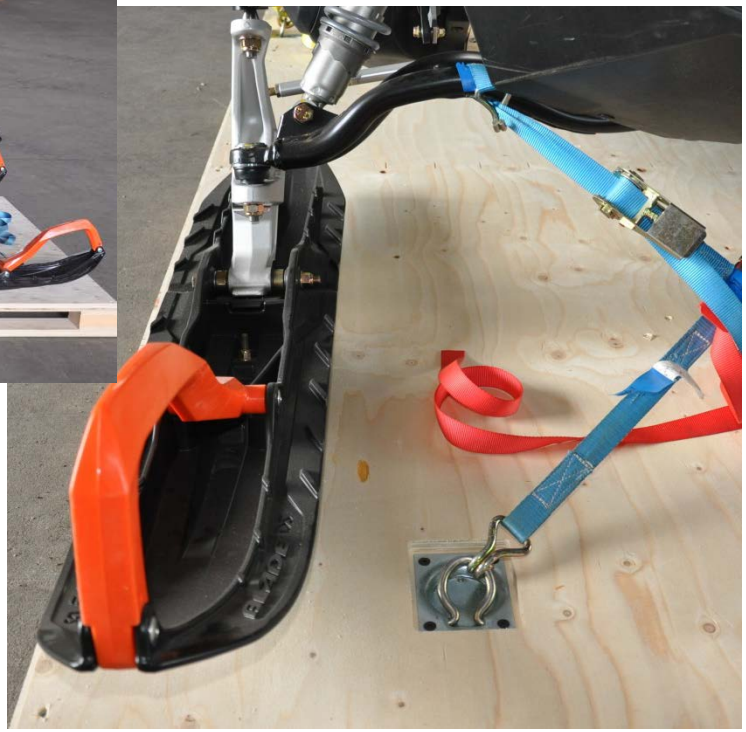
Packaging used from supplier Bombardier w/plastic film cover

Clip-Lok SimPak®

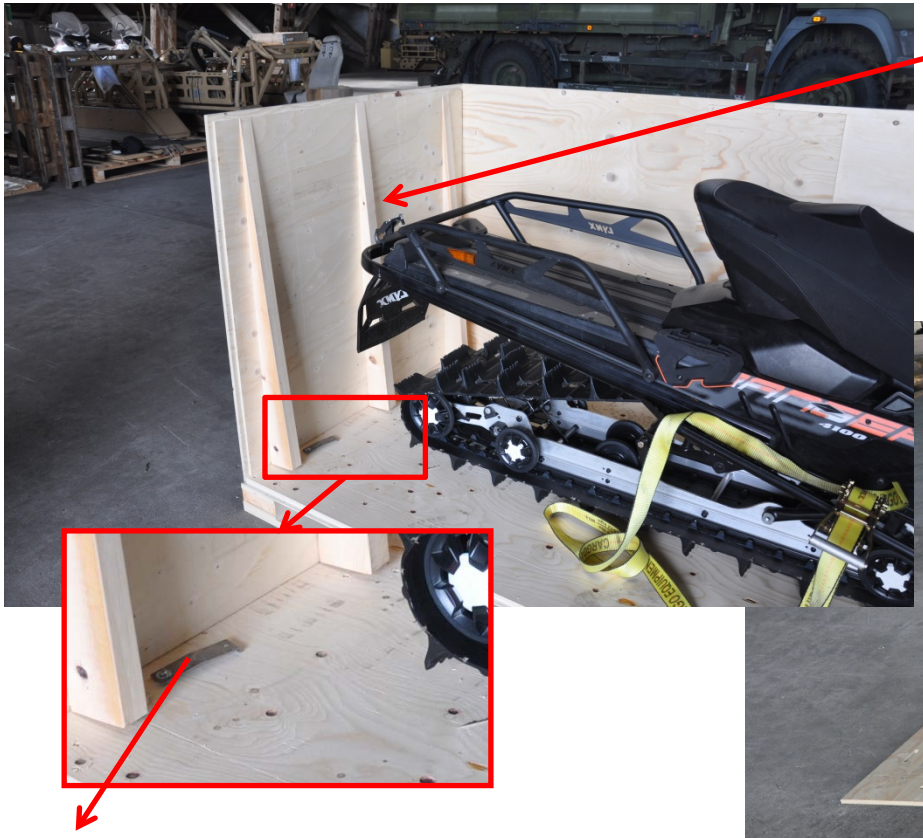
Snowmobiles – Danish Armed Forces



Lashing points

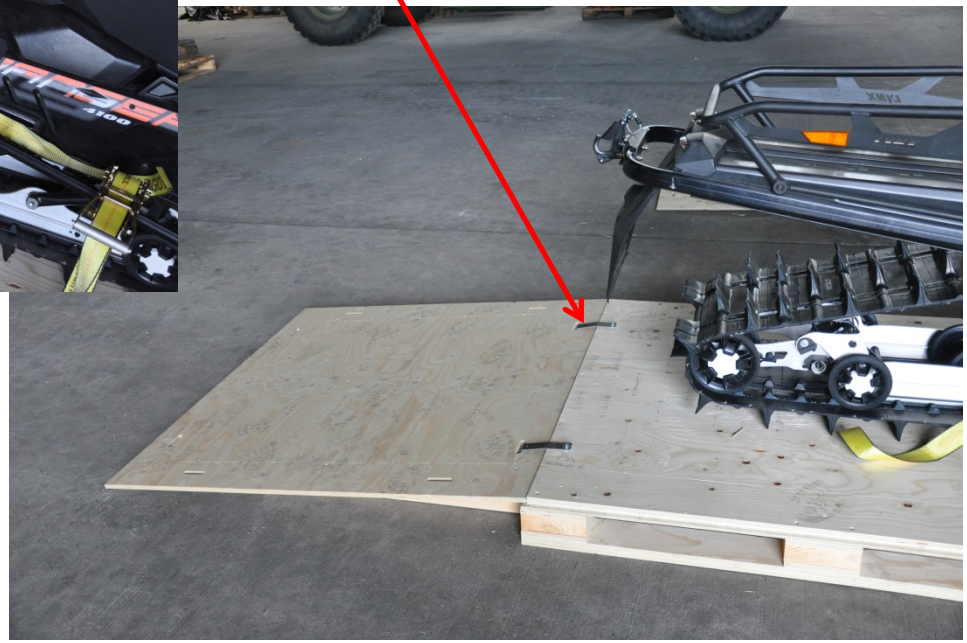


Snowmobiles – Danish Armed Forces



End in 12mm plywood with 3 wedges in sofwood

Ramp lock



Ramp lock turned 90 degrees When box is build up

Snowmobiles – Danish Armed Forces