

NEXT LEVEL CONTAINER LASHING

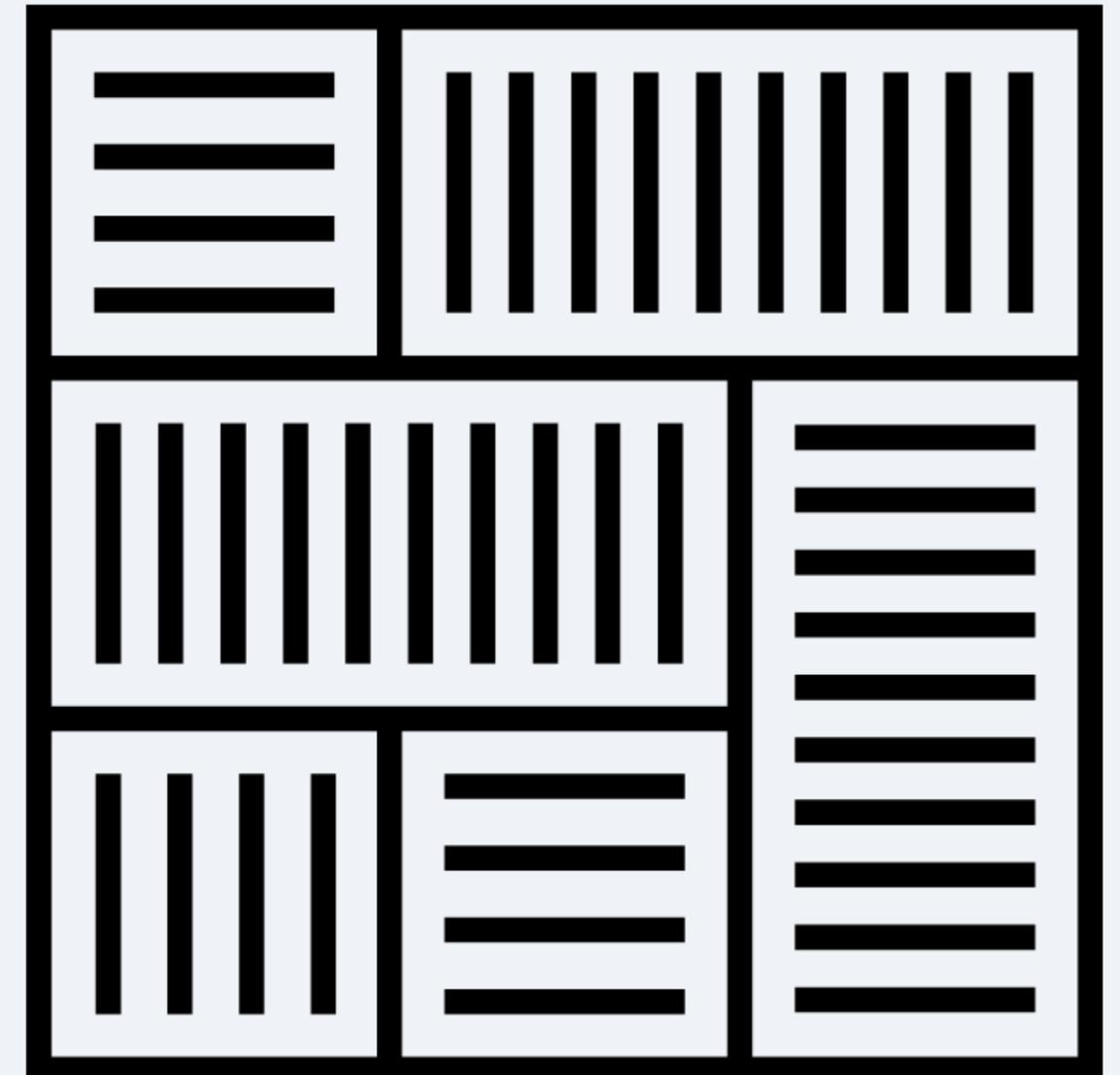
How to support ergonomic, efficient and safe container lashing

ABOUT US

The Port Work Innovation Hub seeks innovative solutions to enhance port safety and well-being by combining expertise from within the port community and beyond.

Port Work Innovation Hub is an initiative by Cepa, the cooperative organization of private port operators in the port of Antwerp.

Discover more on
www.portworkinnovationhub.com



**port work
innovation hub**

WHAT DOES THE FUTURE OF CONTAINER LASHING LOOK LIKE?

The image shows two workers in bright yellow safety suits and hard hats working on a ship's deck. They are positioned on a metal platform, securing a blue shipping container with diagonal lashing. The container is part of a larger stack of containers, with a red one above and another blue one below. The background is filled with the vertical corrugated metal of the containers. In the bottom left corner, the text 'port work innovation hub' is visible. Large white checkmarks and text are overlaid on the left side of the image.

✓ **ERGONOMIC**
✓ **EFFICIENT**
✓ **SAFE**

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THE CHALLENGE

Container lashing is physically demanding. Lashers must work correctly to prevent body overload and need to be supported as best as possible in their work.

The Port Work Innovation Hub looked for solutions to support safe, efficient and ergonomic container lashing.

WHAT YOU NEED TO INVEST IN THE FUTURE



Container lashers trained in **ergonomic practices** (posture, strength exercises, warm-up, and cool down ...).



Impact safety gloves are essential to a lasher's safety gear. They reduce hand and finger injuries significantly.



A specialized tool developed to support ergonomic, efficient and safe container lashing.

OUR SOLUTIONS



Training materials developed by experts

Access to tailor made training materials for container lashers, about ergonomic work and posture.



The ergonomic lashing tool

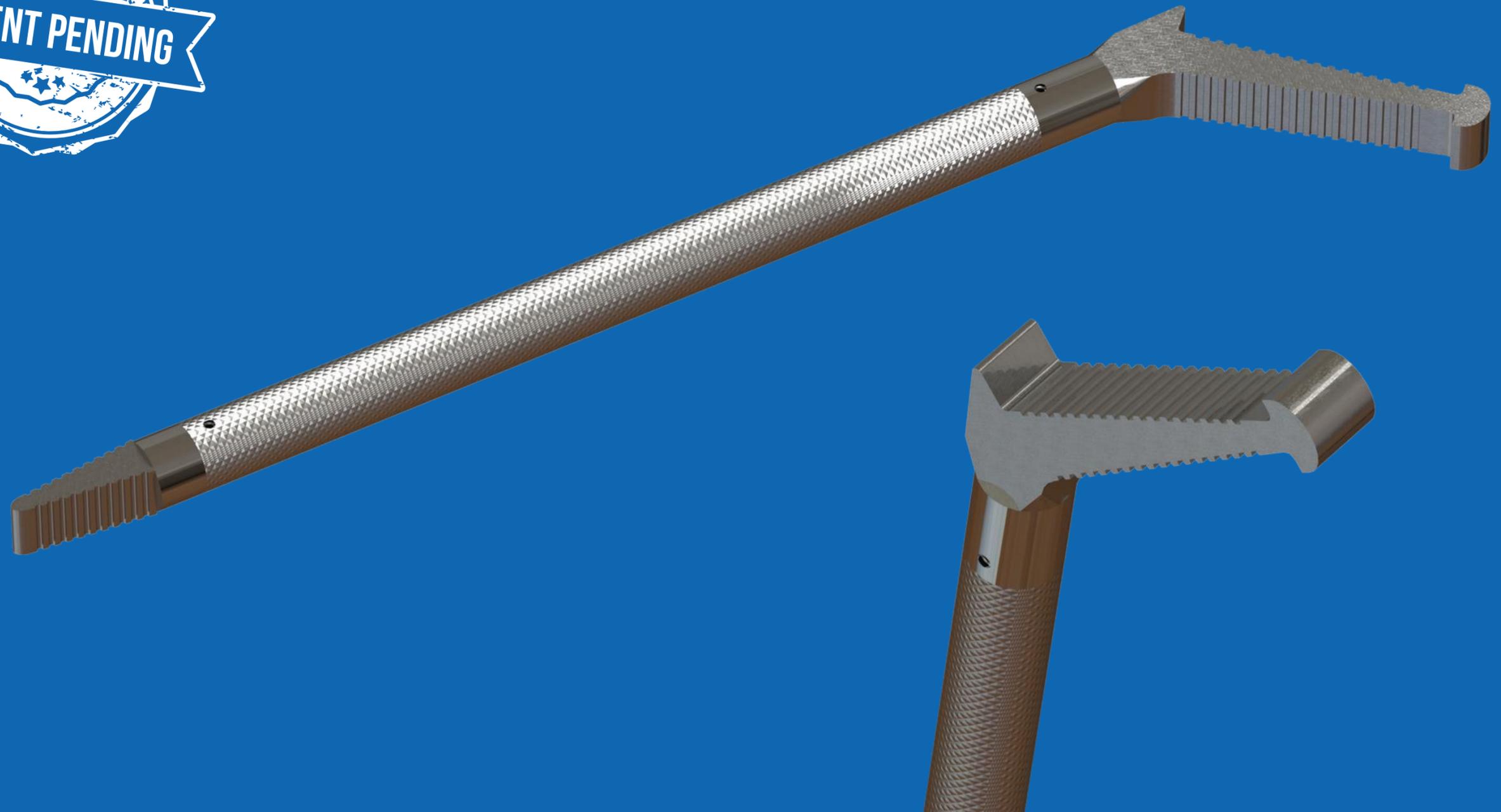
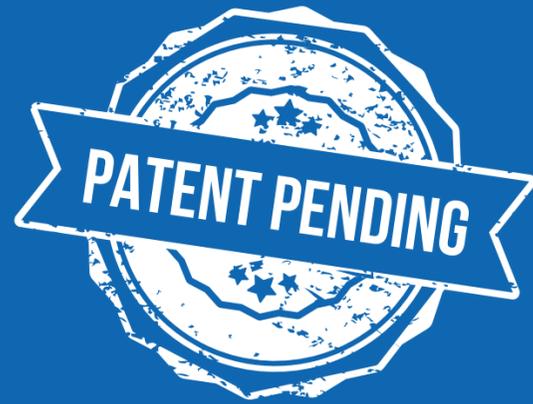
This unique tool helps to ergonomically, efficiently and safely lash almost all types of lashing bars.



Contribution to continuous research

All profits generated from this project will be reinvested into further research to support container lashers in their work.

THE LASHING TOOL UNIQUE IN THE WORLD



RESEARCH AND DESIGN



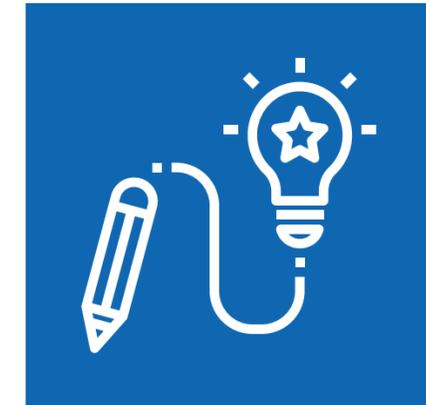
Dockworker Movement Research

Researchers at the University of Antwerp extensively studied the movements of port workers during the container lashing process.



Identifying Straining Postures

Based on the research results, the researchers demonstrated which postures could overload the body, such as back, shoulders and wrists.



Iterative Product Design

Expert product developers at the University of Antwerp designed different models of the lashing tool. With input from port workers and companies, the final model was perfected.

The lashing tool was carefully designed and developed to support port workers and prevent overload injuries during the physically demanding container lashing process.

ERGONOMIC

- Designed to promote an ergonomic posture, enabling prolonged, strain-free work.
- The head piece's 45° angle enables a 180° arc swing with reduced body movement.
- Less force needed to loosen and tighten the lashing bar.
- Fewer rotations per lashing means less rotation of wrist, arm, shoulder and the entire body.
- Positioning the load closer to the body reduces leverage and strain on the back.

EFFICIENT

- The multi-functional head piece enables smooth directional changes during operation, maintaining workflow efficiency.
- Provides easy access to specific lashing bars while maintaining strength.
- 1 tool for most types of lashing bars and lashing situations.

SAFE

- The tool's safety stop and grooved ends firmly grip the lashing bars, preventing slippage.
- Extra grip reduces risk of injury from bumping into work tools, containers ...
- Sturdy aluminum for reliable performance.
- Unique failsafe system prevents breakage of the head piece from the handlebar.



A LASHER'S CHOICE

“I FEEL MUCH BETTER SINCE USING THE LASHING TOOL. I CLEARLY NOTICE THAT MY BODY IS **LESS STRAINED DURING AND AFTER WORK.”**

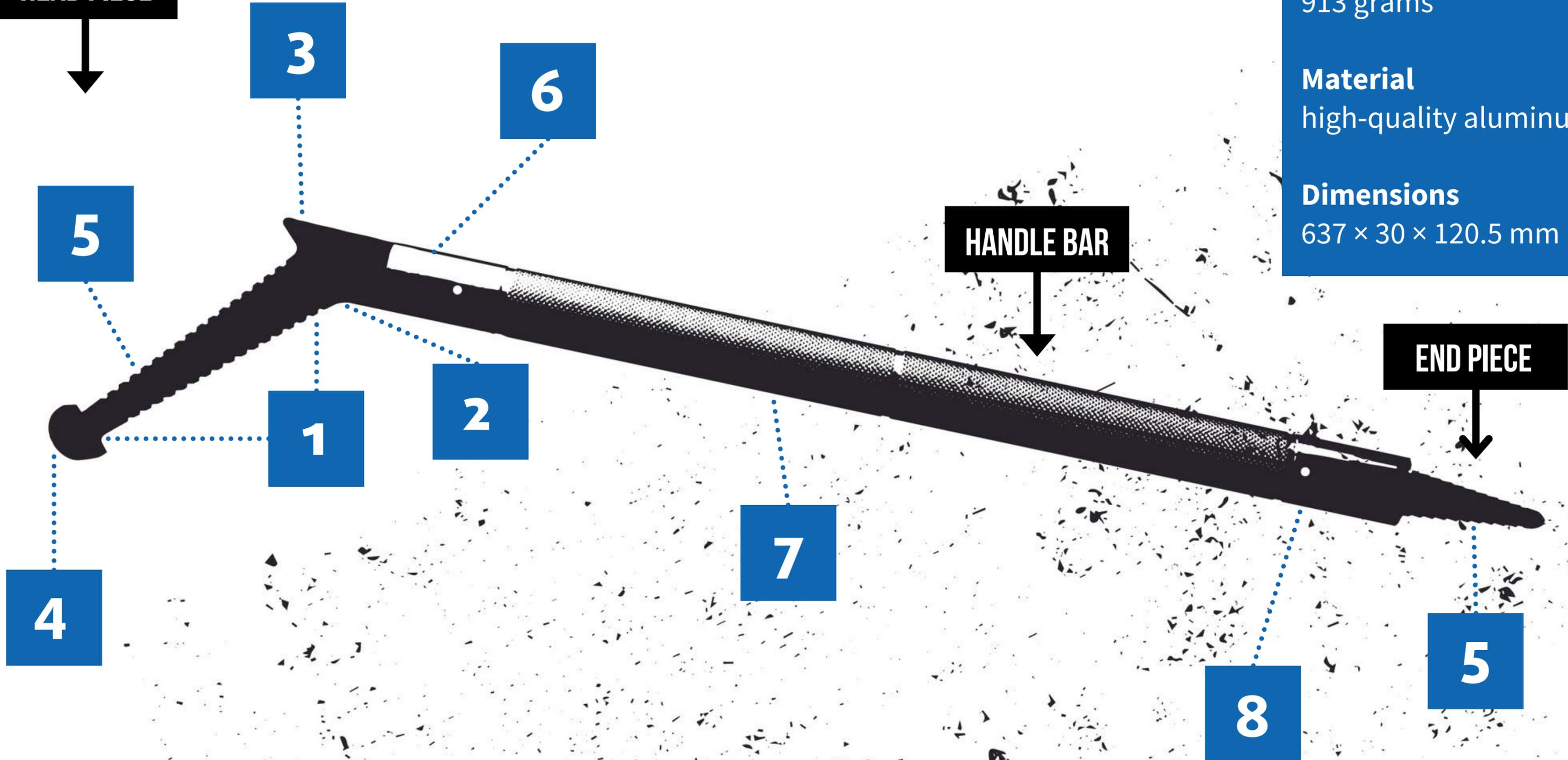
Rudy, Antwerp container lasher

86% OF LASHERS USING THE LASHING TOOL REPORT FEELING **SAFER AND EXPERIENCING **INCREASED GRIP** ON THE LASHING BAR.**

Survey University of Antwerp & Ceva

FEATURES

HEAD PIECE



Technical properties

Light weight

913 grams

Material

high-quality aluminum

Dimensions

637 × 30 × 120.5 mm

END PIECE

HEAD PIECE

In most situations, you use this side of the tool to turn the lashing bar.

- 1 Push and pull surface:** You use both the front and the back of the head piece, allowing you to smoothly change the lashing tool's direction of rotation.
- 2 Tactical angle:** The 45-degree angle means you have to turn your body less far to make a rotation of 180 degrees. Your body is thus less strained, and you can also lash more easily when you have less working space.
- 3 Support anchor:** This raised side allows the tool to clamp down when the head piece is placed between the turnbuckles. This gives you more support while lashing.
- 4 Safety stop:** The safety stop ensures that the lashing tool stays behind the gang door, preventing it from being able to slip away. So you can apply all the force without the risk of the tool sliding off the bars. You can use the tool safely on most lashing bars.
- 5 Grooves:** Deep grooves along 2 sides provide good grip on the lashing bar.
- 6 Fail-safe system:** The design is fail-safe thanks to a special built-in pin, which prevents breakage of the head piece from the handlebar.

HANDLE BAR

This is where you place your hands when you are working with the lashing tool.

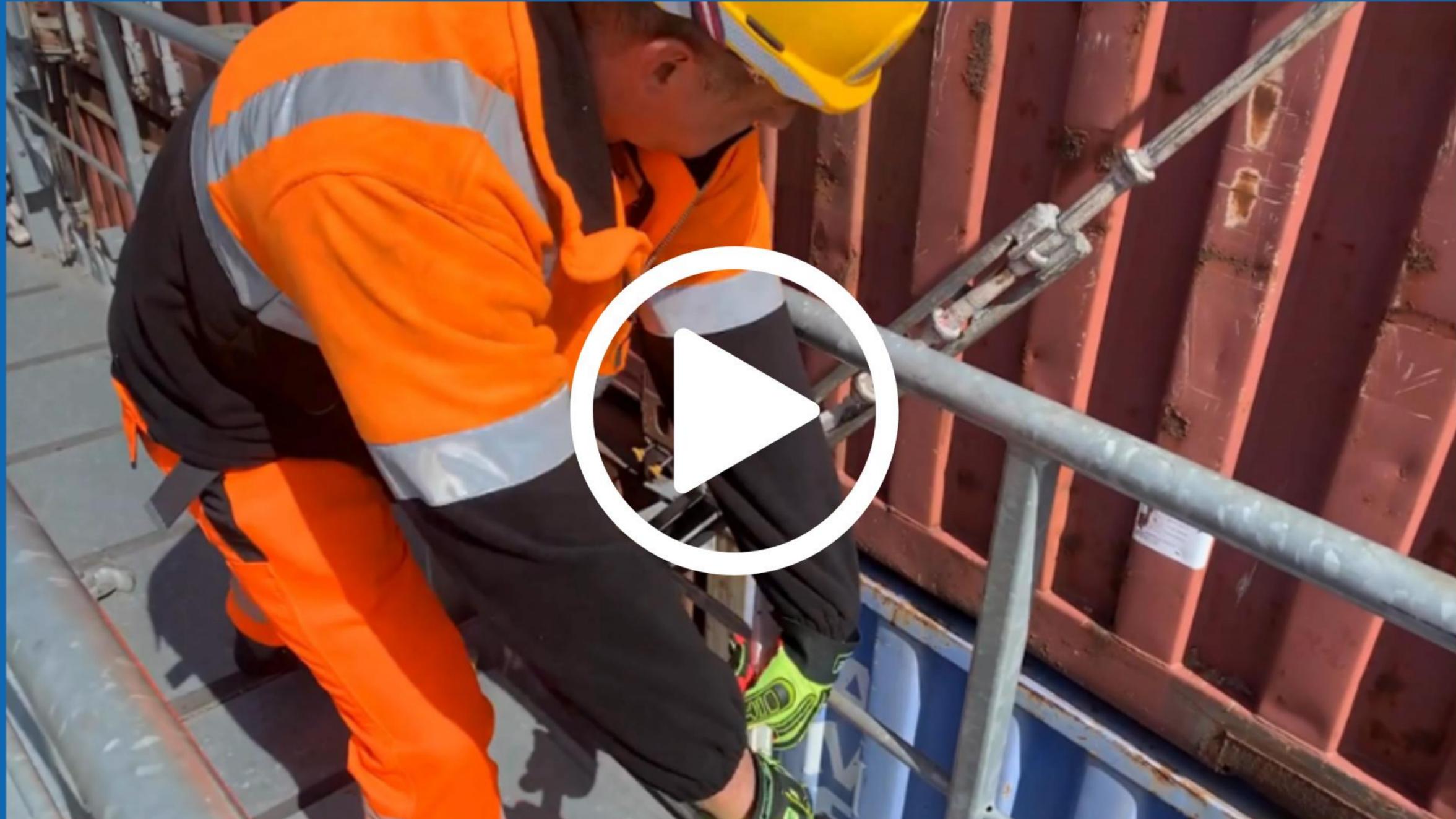
- 7 Diamond ridged pattern:** The pattern ensures that you put your hands in the right position to (un)lash. The serrations provide extra grip with the impact safety gloves.
- 8 Attachment method:** The lashing tool is made so that the tool can withstand a great deal of force. The parts are attached to each other in a specific way.

END PIECE

In certain situations, you can work more easily with the end piece of the lashing tool instead of the head piece. For example, when:

- You have little space to lash. A straight tool is often more practical then.
- You are working with a lashing turnbuckle with a narrow opening, e.g.:
 - When the turnbuckle is at minimum length and the screw completely fills the opening of the bar.
 - If you cannot reach the wide opening of the turnbuckle.
 - If you can adopt a more ergonomic working position by working on the narrow opening.

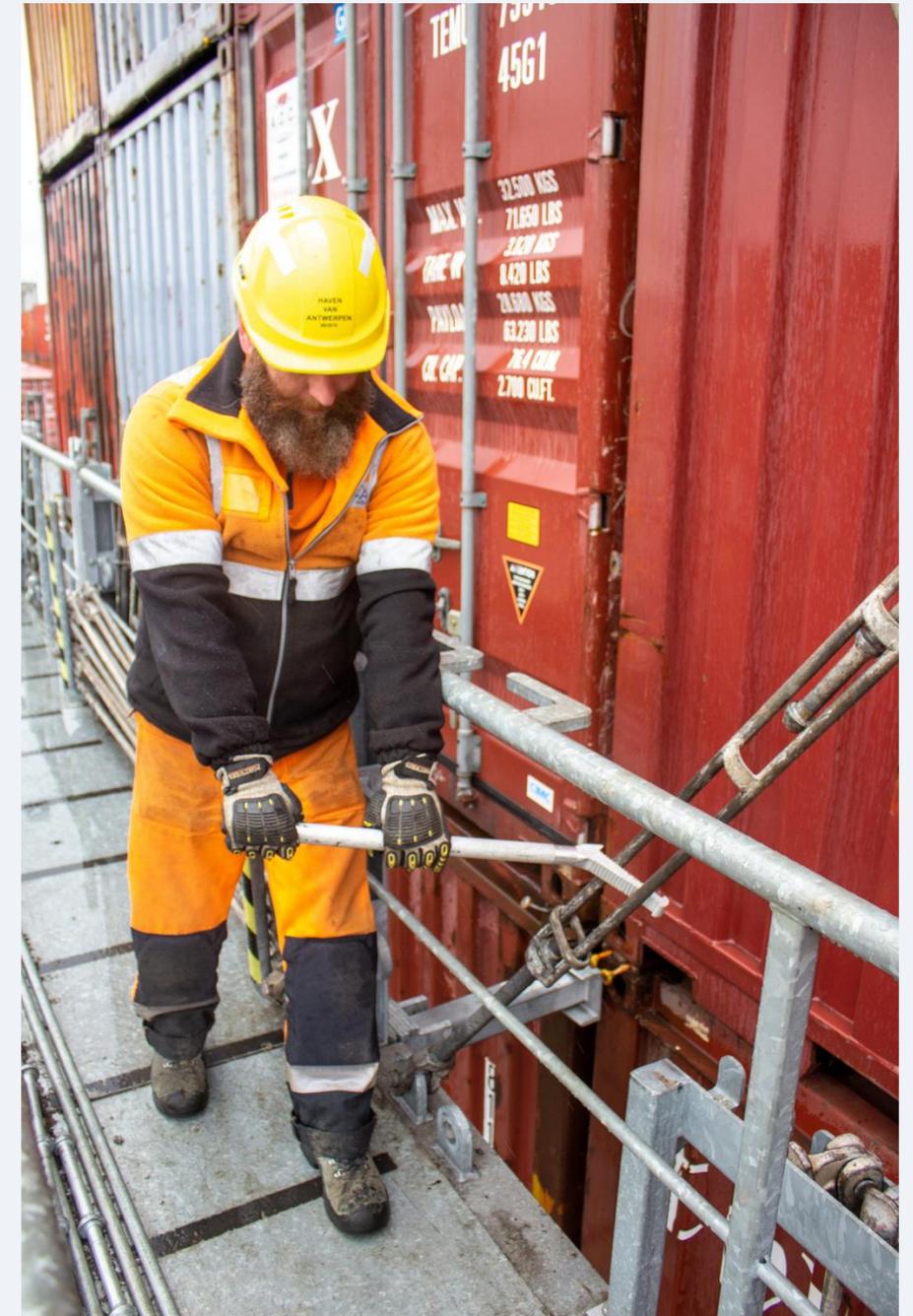
THE LASHING TOOL HOW IT WORKS



“

“I WOULD RECOMMEND THE LASHING TOOL TO ANYONE. YOU NEVER WANT TO GO BACK USING ANOTHER PIECE OF EQUIPMENT.”

Matthias, Antwerp container lasher



JOIN THE COMMUNITY

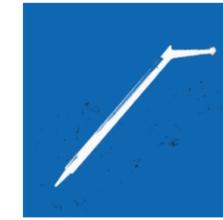
1 Take container lashing to the next level at your company



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Impact safety gloves are essential to a lasher's safety gear. They reduce hand and finger injuries significantly.



A specialized tool developed to support ergonomic, efficient and safe container lashing.

2 Become an ambassador and invest in the future



All profits generated from this project will be **reinvested into further research** and development. Join us as an ambassador and co-invest in projects aimed at enhancing the safety and efficiency of container lashing.

JOIN THE COMMUNITY PRICING AND OFFER

The complete experience



145 € (excl. TAV) per tool

Shipping and customs fees will be calculated on order.



Access to tailor made training materials for container lashers, about ergonomic work and posture, the correct use of the lashing tool, awareness training on strain injuries ...



The ergonomic lashing tool

A unique tool to ergonomically, efficiently and safely lash most types of lashing bars in different lashing situations.

**ALL PROFITS GENERATED FROM THIS
PROJECT WILL BE REINVESTED INTO
FURTHER RESEARCH TO SUPPORT PORT
WORKERS IN THEIR WORK.**



WANT TO TAKE CONTAINER LASHING TO THE NEXT LEVEL?

port work
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MORE INFO? WANT TO ORDER? CONTACT US



secretariaat@cepa.be