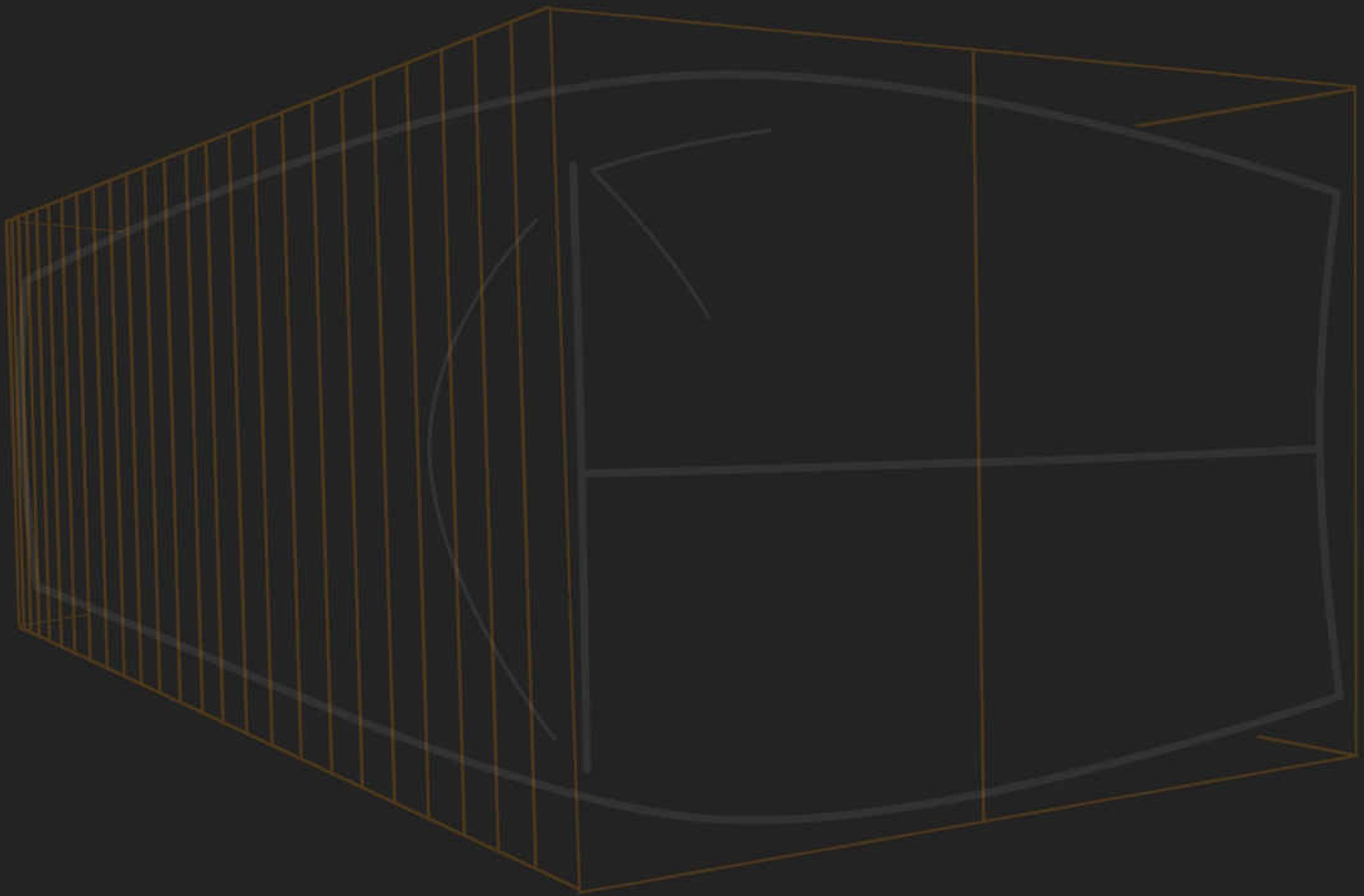


**TRUST**

FLEXITANKS



European manufacturer of flexitanks,  
leader in design and process automation.



Trust Flexitanks is a **European Flexitank manufacturer** based in Spain. A large part of the production is automated allowing us to guarantee precise manufacturing processes and a final product of the utmost quality.

Our goal is to improve the quality of the flexitank through technology and continuous innovation to offer products with the best quality/price ratio in the market.

**Trust Flexitanks** is continuously innovating bringing new products to the market like storage tanks , reefer container flexitanks etc. This allows us to offer the ideal tank for each type of product and customer profile.

We offer personalized customer service. Our flexible logistics allow us to serve orders with the maximum speed and efficiency. This way we help our customers maintain the right stock level at any given time without losing cargo opportunities.

We are an active member of the COA and support its objectives of improving and certifying quality in both flexitanks and logistics services.

Our sustainability agenda embraces ecologic, social and economic pillars.



At Trust Flexitanks we are committed to flexitanks  
"Made in Europe"





## Technology and design

A Flexitank is a high-risk packaging that must be produced with extreme caution. At Trust Flexitanks we look to the future, exploring new designs and production methods.

Our approach combined with technology and design, is what allows us to ensure a flexitank of the highest and constant quality.

### Technology and automation

Design and automation are the pillars of our company.

The manual processes have been replaced by automated machinery that have made it possible for the processes to be faster and, above all, more constant, allowing a reduction of costs and avoiding human errors.

### “Machines never have a bad day”

We have multiple quality control sensors throughout the manufacturing process that detect any anomaly.

The machines that allow us to automate the whole process are the result of the study and innovation of our own engineers and all of them are protected by international patents.

Our production line guarantees our customers a high and continuous quality at a very competitive price, making it unique in the world.





## Sustainability

### Ecologic Sustainability – Circular economy

At Trust Flexitanks we are committed to reducing the environmental impact of our operations.

Although flexitanks have a very low ratio of “packaging per ton of product transported”, we continuously work towards the reduction of its environmental impact.

PE is a thermoplastic that can be melted and reused infinitely to make new products. Together with our European film providers we are actually in the process of circular economy recycling the PE film cuts and regranule towards circular use. In the production of bulkheads, we seek more technical solutions not only to reduce the amount of steel per set, but also to make possible their recovery and reuse.

## Economic Sustainability

Sustainability also embraces the long term assurance of our business. Trust Flexitanks works closely with the container owners (shipping lines) to protect their equipment – avoid bulging – and assure safe and strong bulkhead systems to protect containers and operators. Safety is one of the most important pillars of sustainability.

No business is sustainable when safety cannot be assured!

## Social Sustainability

A business can only be sustainable if it creates a prosperous and safe working environment for its people. “Made in Europe” is still the best guarantee for decent working conditions in a safe environment respecting the workforce. Our people make the difference and it is our job to provide them with the vehicle for their personal life development. Still almost all flexitanks are produced in “close-to-slavery” conditions. Trust is one of the very few exceptions on this very serious matter.



Please ask for our sustainability brochure!



[www.trustflexitanks.com](http://www.trustflexitanks.com)



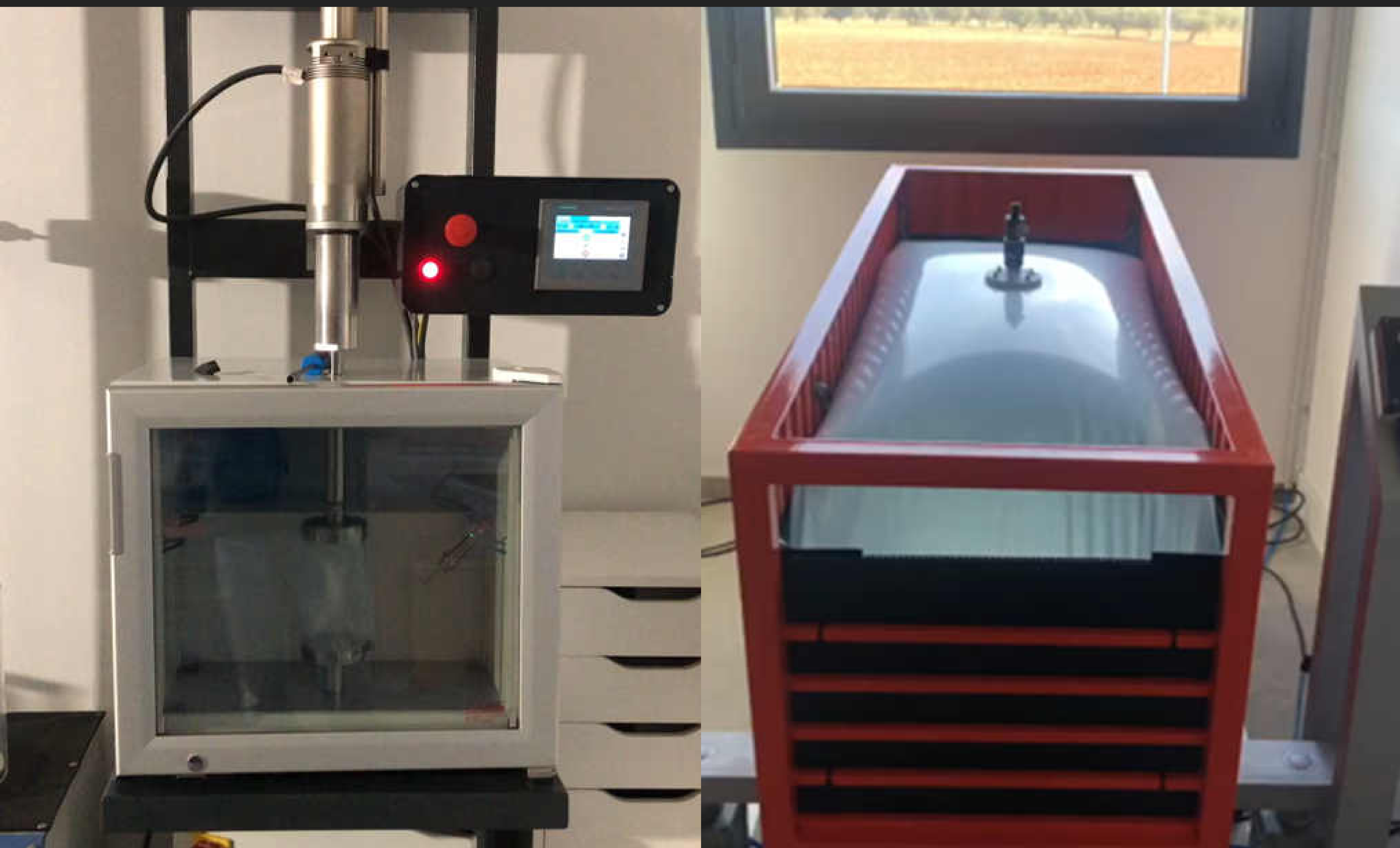
## Quality

Our raw materials used in the production process and the finished products undergo the strictest quality control procedures to guarantee a perfectly finished product for our customers.

In our laboratory we carry out daily all the necessary controls. This laboratory also serves as a tool in the development of new products.

This quality assurance is reflected in the certificates demanded by the industry, as well as by regulatory entities and bodies.

Our engineers have developed in-house lab machinery to best simulate real life conditions. Our cold temperature stress crack testers are unique in the industry and provide us the most accurate information making it possible to develop the highest stresscrack resistant film in the market.





## Quality Certificates

Trust Flexitanks is “fully compliant member” in COA since 2012 which means it is in the possession of all necessary certificates:

- COA membership certificate
- Impact rail test certificate – Beijing China and Pueblo USA
- Iso 9001 Management certificate by Veritas
- Iso 14001 Environmental Management certificate by Veritas
- Training and material testing by PAS
- Insurance certificate by Zurich

Food compliance:

- HACCP food certification by Veritas







# PRODUCTS







# MULTILAYER FLEXITANK



# MULTILAYER FLEXITANK

## PRODUCT SPECIFICATIONS MULTILAYER STANDARD



Capacity: 16,000 – 26,000 litres  
Bottom load; camlock 3" connection

Woven Polypropylene Outer Layer: Premium PP Silk Quality

Polyethylene Film: LDPE 2-3 and 4 Layer LDPE EU made Film

Extra Strong Anti Suction Valve With 6cm Support Board

Food Grade (according to EU food regulations 1935/2004, 2023/2006, 10/2011 and FDA 21 CFR 177)

### MECHANICAL PROPERTIES PE FILM

### TYPICAL VALUES \*

### TEST METHOD

Tensile strength

MD  $\geq$  26.0 N-mm<sup>2</sup>

ASTM D882

TD  $\geq$  28.0 N-mm<sup>2</sup>

ASTM D882

Elongation at Break

MD  $>$  600%

ASTM D882

TD  $>$  650%

ASTM D882

Tear Resistance

MD  $\geq$  0,088 N/um

ASTM 1004

TD  $\geq$  0,088 N/um

ASTM 1004

Impact strength (film total)

$\geq$ 2250g

ASTM D1709

\* Indicative but not binding values, according to film manufacturer specs.



# MULTILAYER FLEXITANK

## PRODUCT SPECIFICATIONS WINE FLEXITANK



Capacity: 16,000 – 26,000 litres  
Bottom load; camlock 3" connection

Woven Polypropylene Outer Layer: Premium PP Silk Quality

Polyethylene Film: 2 x LDPE layer LDPE EU made Film  
Oxygen barrier : 1x EVOH film layer EU made Film  
Extra Strong Anti Suction Valve With 6cm Support Board  
Food Grade (according to EU food regulations 1935/2004, 2023/2006, 10/2011 and FDA 21 CFR 177)

OTR = OXYGEN TRANSMISSION RATE EVOH FILM LAYER: 0.40 cc/m<sup>2</sup>/day

### MECHANICAL PROPERTIES PE FILM

### TYPICAL VALUES \*

### TEST METHOD

Tensile strength

MD  $\geq$  26.0 N-mm<sup>2</sup>  
TD  $\geq$  28.0 N-mm<sup>2</sup>

ASTM D882  
ASTM D882

Elongation at Break

MD  $>$  600%  
TD  $>$  650%

ASTM D882  
ASTM D882

Tear Resistance

MD  $\geq$  0,088 N/um  
TD  $\geq$  0,088 N/um

ASTM 1004  
ASTM 1004

Impact strength (film total)

$\geq$ 2250g

ASTM D1709

\* Indicative but not binding values, according to film manufacturer specs.





**FULL PROTECTION SHIELD**  
**FPS MULTILAYER**  
**FLEXITANK**



## FPS

### FULL PROTECTION SHIELD MULTILAYER FLEXITANK



For your most sensitive and demanding products, Trust Flexitanks has developed a new multilayer Flexitank with added “FULL PROTECTION SHIELD”.

Specially designed to substitute the single layer flexitanks for your high quality industrial oils which are sensible to humidity absorption and which tend to permeate through the standard LDPE films (“sweating effect”).

The FPS Multilayer flexitank also substitutes the alu foil flexitanks for wine transports. The alu foil is very unreliable (rips open during transport) and is not recyclable. The FPS film is 100%recyclable and 100% reliable as it is a thermoform plastic. Excelent lab tests for naphtalene permeation (available on request).

THE **FPS** MULTILAYER FLEXITANK brings various advantages like:

- Extremely low humidity transfer (lower than single layer flexitanks)  
**WVTR = 0.35 cc/(m<sup>2</sup>-day) @ 38°C – 90%RH**
- Avoids product permeation (“sweating”) and any other outside impacts like oxygen and odeur (smell) due to the incorporated EVOH barrier  
**OTR = 0.61 g/(m<sup>2</sup>-day) @ 38°C – 90%RH**
- Multilayer solution providing a higher reliability than single layer bags
- Increased tear resistance compared to metal (alu) based films. The polyethylene flexible core avoids the possible splitting of the protective layer.



# FPS



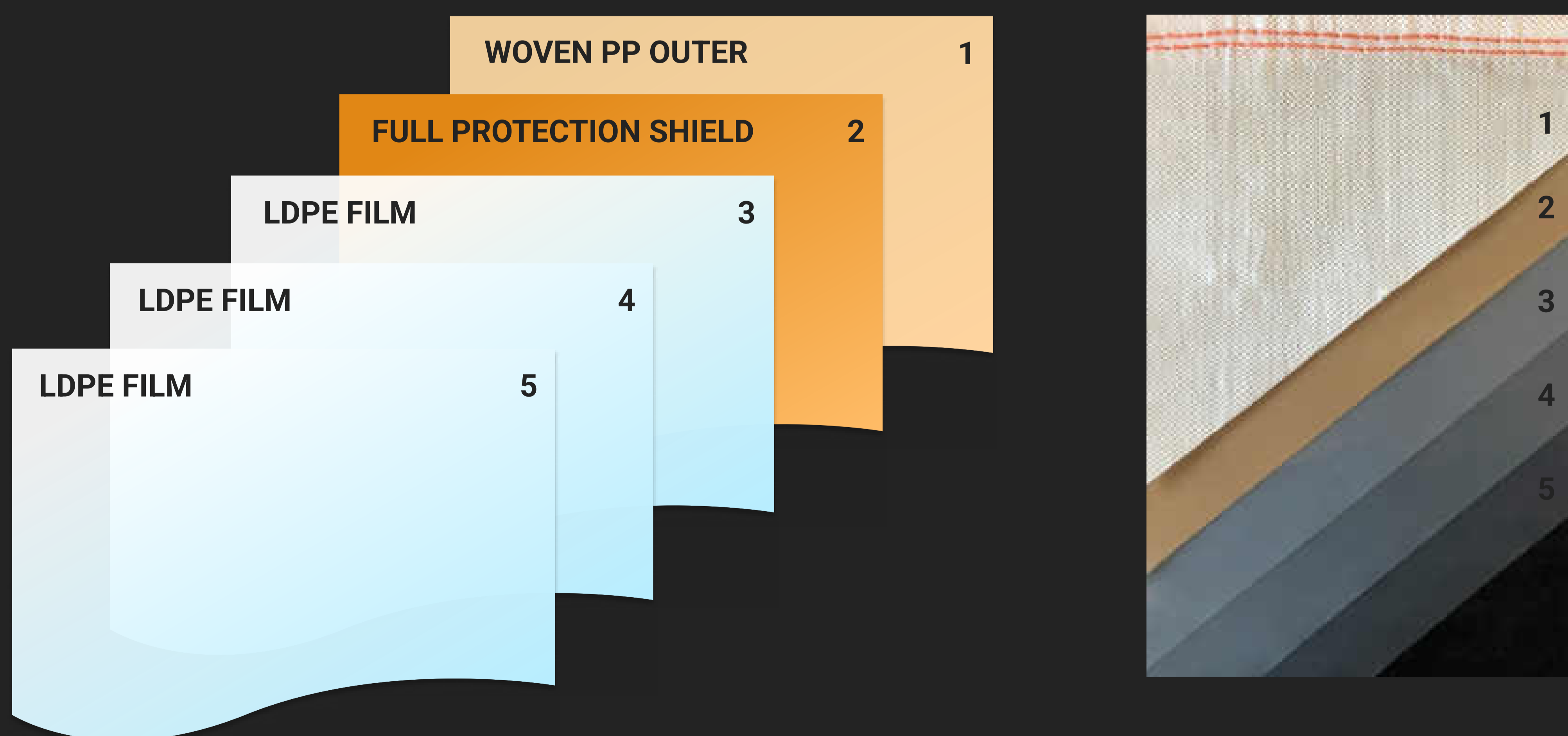
## COMPOSITION

**WOVEN PP OUTER:** 200GSM – PREMIUM QUALITY

**FPS – FILM:** PE MULTIDENSITY CORE BASED ON METALLOCENE STRUCTURE  
INCLUDES ADAPTED ADDITIVATION AND EVOH BARRIER

**3 x LDPE:** OUR TRUST LDPE STANDARD FLEXITANK FILM FOR MAXIMUM RELIABILITY

**VALVE:** TRUST 3" STANDARD BALL VALVE



# FPS



## PRODUCT SPECIFICATIONS “FULL PROTECTION SHIELD” FPS TANK

Capacity: 22.000 LITER – 23.000 ILITER - ... - 26.000LITER  
Bottom load; camlock 3” connection

WOVEN PP: 200GSM PREMIUM PP SILK QUALITY

**FPS:** PE MULTIDENSITY CORE BASED ON ADVANCED METALLOCENE STRUCTURE. INCLUDES ADAPTED ADDITIVATION + EVOH

**PE FILM:** LDPE 3 LAYERS LDPE FILM  
EXTRA STRONG ANTI SUCTION VALVE WITH SUPPORT BOARD  
EXTRA FILM REINFORCEMENT AROUND VALVE  
100% MADE IN EUROPE  
FOOD GRADE (according to EU food regulations 1935/2004, 2023/2006, 10/2011 and FDA 21 CFR 177)

WVTR: 0.35 cc/(m<sup>2</sup>-day)(38°C – 90%RH)

OTR: 0.61 g/(m<sup>2</sup>-day)(38°C – 90%RH)

MECHANICAL PROPERTIES PE FILM	TYPICAL VALUES *	TEST METHOD
Tensile strength	MD ≥ 26.0 N/mm <sup>2</sup>	ASTM D882
	TD ≥ 28.0 N/mm <sup>2</sup>	ASTM D882
Elongation at Break	MD > 600%	ASTM D882
	TD > 650%	ASTM D882
Tear Resistance	MD ≥ 0,088 N/um	ASTM 1004
	TD ≥ 0,088 N/um	ASTM 1004
Impact strength (film total)	≥2250g	ASTM D1709

MECHANICAL PROPERTIES WOVEN	TYPICAL VALUES *	TEST METHOD
Tensile strength	MD ≥ 1400 N/50 mm	ASTM D4595
	TD ≥ 1400 N/50 mm	ASTM D4595
Elongation at Break	MD ≥ 15%	ASTM D4595
	TD ≥ 15%	ASTM D4595
Stitch strength	≥ 500 N/50 mm	ASTM 1D4595

\* Indicative but not binding values, according to film manufacturer specs.

Trust Flexitanks cannot be held responsible for product compatibility unless specific confirmation of compatibility has been given by written notice





# 40FT REEFER FLEXITANK





## REEFER CTR FLEXITANK

### PRODUCT SPECIFICATIONS



Capacity: 16,000 – 20,000 litres  
Bottom load; camlock 3" connection

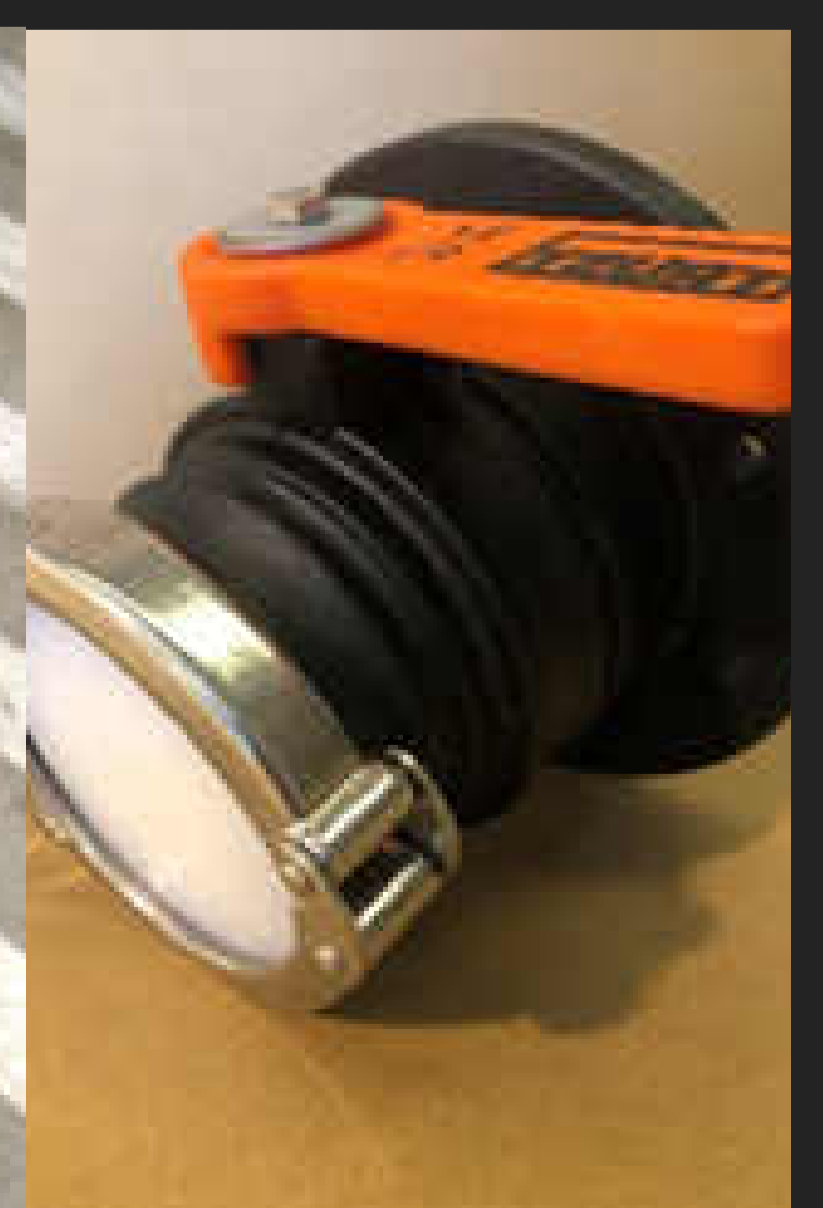
Woven Polypropylene Outer Layer: Premium PP Silk Quality

Polyethylene Film: LDPE Triple Layer special cold resistant film  
Optional oxygen barrier (EVOH and metalized) film available.

Aseptic treatment optional

Food Grade (according to EU food regulations 1935/2004, 2023/2006, 10/2011 and FDA 21 CFR 177)

**DOUBLE REUSABLE BULKHEAD SYSTEM FOR MAXIMUM SAFETY AND REEFER  
EQUIPMENT PROTECTION**





# TRUST MULTILAYER REEFER FLEXITANK



## PRODUCT SPECIFICATIONS

Capacity: 16.000 LITER - 17.000LITER - ... - 20.000L  
Bottom load; camlock 3" connection

WOVEN PP: 200GSM PREMIUM PP SILK QUALITY

### PE FILM:

LDPE 4 LAYER MICRO FLEX FILM  
EXTRA STRONG ANTI SUCTION VALVE WITH SUPPORT BOARD  
EXTRA FILM REINFORCEMENT AROUND VALVE  
100% MADE IN EUROPE  
FOOD GRADE (according to EU food regulations 1935/2004, 2023/2006, 10/2011 and FDA 21 CFR 177)

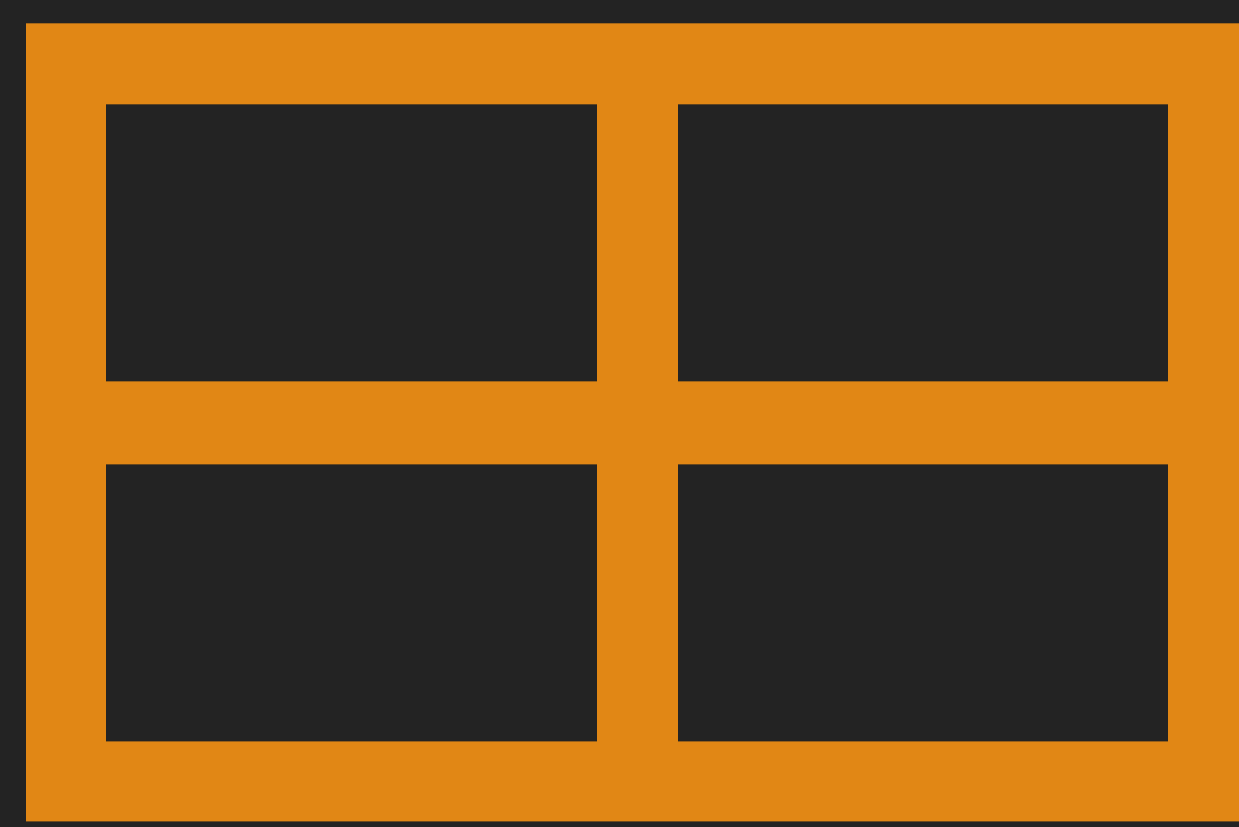
MECHANICAL PROPERTIES PE FILM	TYPICAL VALUES *	TEST METHOD
Tensile strength	MD $\geq 27.5$ N-mm <sup>2</sup>	ASTM D882
	TD $\geq 29.5$ N-mm <sup>2</sup>	ASTM D882
Elongation at Break	MD $> 700\%$	ASTM D882
	TD $> 780\%$	ASTM D882
Tear Resistance	MD $\geq 0,092$ N/um	ASTM 1004
	TD $\geq 0,092$ N/um	ASTM 1004
Impact strength (film total)	$\geq 2250$ g	ASTM D1709

MECHANICAL PROPERTIES WOVEN	TYPICAL VALUES *	TEST METHOD
Tensile strength	MD $\geq 1400$ N/50 mm	ASTM D4595
	TD $\geq 1400$ N/50 mm	ASTM D4595
Elongation at Break	MD $\geq 15\%$	ASTM D4595
	TD $\geq 15\%$	ASTM D4595
Stitch strength	$\geq 500$ N/50 mm	ASTM 1D4595

\* Indicative but not binding values, according to film manufacturer specs.

Trust Flexitanks cannot be held responsible for product compatibility unless specific confirmation of compatibility has been given by written notice





# BULKHEADS AND COMPLEMENTS



## BULKHEAD STANDARD

We offer different bulkheads approved by the COA guaranteeing safe transport by truck, boat and train.



### The TRUST Standard Bulkhead:

- ✓ Is COA Approved – TUV Tested
- ✓ Structure ensures that valve does not touch the container door at any time
- ✓ Has additional distance between valve and right hand door
- ✓ Consists of 5 bars of 80x40x2 MM + 1 bar of 40x40x3mm
- ✓ Made of steel – can be galvanized or painted as optional
- ✓ Resistant and very easy to transport.
- ✓ Innovative bar collapse protection system using vertical supports (legs) to facilitate the assembly.
- ✓ Waterproof extra rigid 8mm thick MDF Panel (H. 1.40m).



## BULKHEAD MIRROR FRAME

We offer special frame bulkheads upon request which are extra resilient for the most demanding transport situations by truck, train and boat. Robotic welding and painting are used for a precision finish in our unique Bulkhead factory.



### The TRUST Standard Bulkhead:

- ✓ Is COA Approved – TUV Tested
- ✓ Structure ensures that valve does not touch the container doors at any time
- ✓ Two frame system – easy to install
- ✓ Vertically Welded Frame of 80 x 40 x 2mm bars + middle bar of 40 x 40 x 3mm
- ✓ PP board 2000GSM; 122CM High



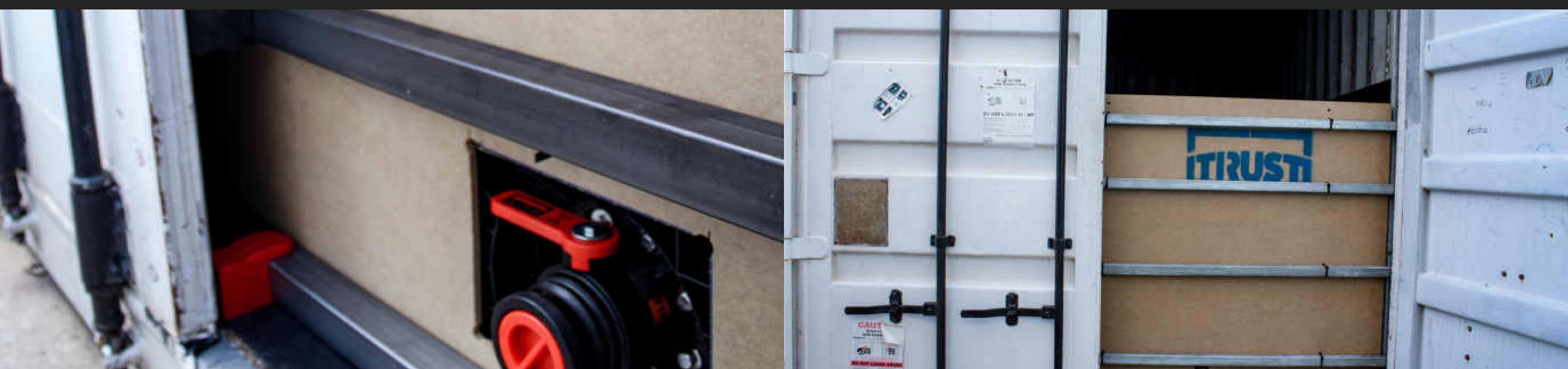
## BULKHEAD ECO SYSTEM

Trust ECO systems with vertical legs and plastic studs



### Consists of:

- ✓ 5 steel bars of 40 x 40 x 3 mm or 50x50x2 mm.
- ✓ 5 PP studs + cable ties.
- ✓ Innovative bar collapse protection system using vertical supports (legs) to facilitate the assembly.
- ✓ Waterproof extra rigid 8mm thick MDF panel (h. 1.40m).
- ✓ Resistant and very easy to transport.



## BULKHEAD DOUBLE FRAME

The TRUST double frame bulkhead



### Consists of:

- ✓ Double frame - easy to install.
- ✓ 50 x 50 x 2 mm Steel bars vertically welded.
- ✓ PP studs.
- ✓ 122cm high Polypropylene or MDF board.
- ✓ Painted or natural steel.





## HEATER PAD PLUS

### PRODUCT SPECIFICATIONS



The TRUST Heaterpad Plus **reusable** system is fitted into a 20' container under the TRUST Multilayer Flexitank.

The Heaterpad Plus is based on direct steam input for super fast heating thanks to the sauna effect created in the container.

**Heating tubes:** made of Zinc and are covered by a special heat diffusion blanket allowing a more even and rapid heating as well as avoiding burning of the tank material by the pipes.

These tubes can handle up to 3 bar of steam and as a result heat up quicker than isotanks!

It is **ideal for high melting point products** such as vegetable (palm oil, cocoa and shea butter) and animal fats (pig fat, tallow)





# LIVE TEST RESULTS

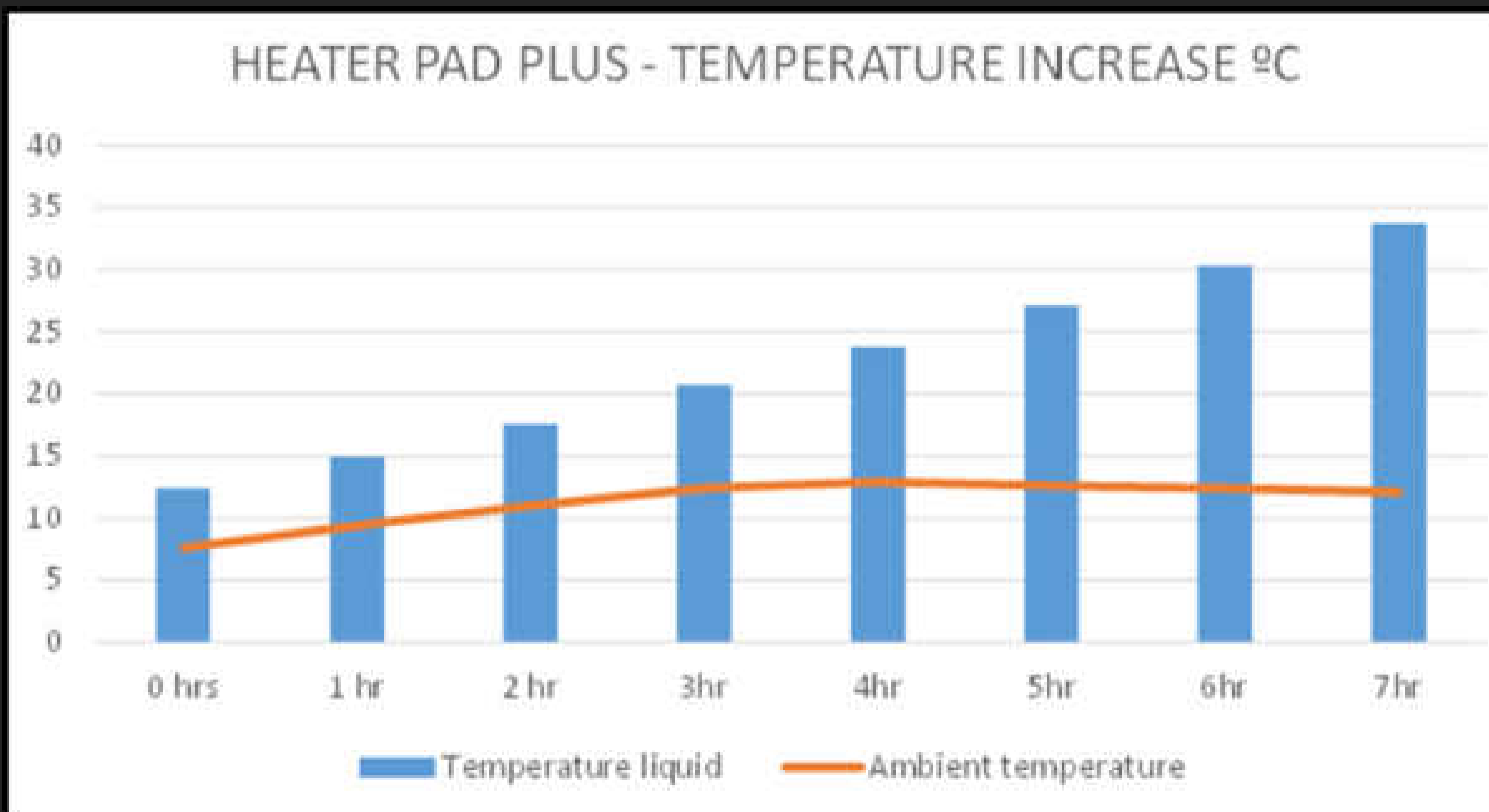
## November 2018 - Germany

### Conditions

Outside temperature:	+/- 12°C
Product:	water
Temperature liquid 12 hrs:	12°C
Temperature liquid 19 hrs:	32°C
Working pressure:	3 bar
Temperature steam:	130°C
Input steam:	60-80kg/hr



No intermediate discharge!

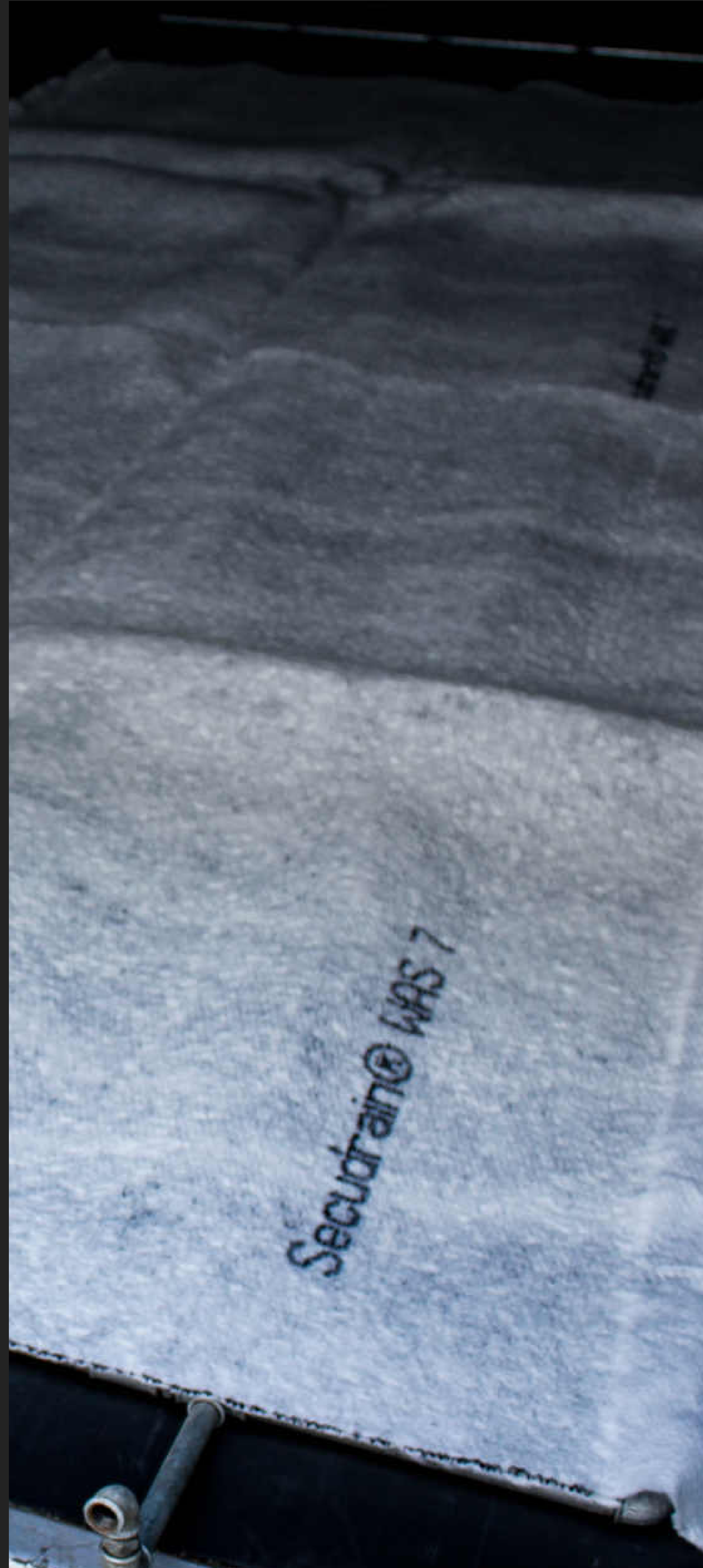


### Result After 7 Hrs Heating

**+21°C** increase at top of flexitank  
**+25°C** increase at valve level



Represents a 3°C per hour increase!



## HEATERPAD Standard

### PRODUCT SPECIFICATIONS

The Standard Heaterpad is fitted into a 20' container under the TRUST Multilayer Flexitank.

On arrival at the discharge site, low pressure steam or hot water is passed through the heater pad hoses to heat the product.

The layout and coiled heating surface area of the Heaterpad ensures rapid and even heat up of the product .

Once the product has reached a liquid state, product can be pumped out.

**Material:** 32 Rubber tubes + Steel diffuser

Caoutchouc 10mm tubes

**Manifold/connection:** Steel, 25mm tube

**Temperature range:** < 130°C

**Heat source:** Low pressure steam (<0.4 Mpa)



# STATIC STORAGE TANKS

## PRODUCT SPECIFICATIONS



Capacity up to 27.000L (larger sizes upon request)  
3· CAMLOCK CONNECTION (2" and 4" upon request)  
SINGLE OR DOUBLE VALVE

### MATERIAL

- VALVE: 3" camlock connection (2" and 4" upon request)
- WOVEN PP: 200GSM premium PP silk quality
- PE FILM: LDPE film with or without EVOH oxygen barrier
- Optional aluminium barrier
- 100% made in Europe
- FOOD GRADE (according to EU food regulations 1935/2004, 2023/2006, 10/2011 and FDA 21 CFR 177)

### USE AND ADVANTAGES

Used as a **temporary storage solution**, our static storage freestanding flexitank can be used at load or destination points to assist with:

- Just in time delivery systems
- Emergency response water and fuel storage
- Irrigation & agricultural solutions
- This tank can be used for multiple fill/empty cycles
- Prior to accepting an order for units, we verify that the product and material are compatible and advise on the type of tank that will best suit the application.



**TRUST FLEXITANKS S.L.**

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