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hydraroll
LIGHTENING LOADS



modular rollerbed
system: powered
cargo rollers

contents

Introduction	4	Basics of Design	13
Slimline to Streamline	5	Powered Cargo Roller	14
Plug & Play	6	Technical Specifications	15
Safety First	7	Rollertrack Types	16
Suitable for all Shapes & Sizes	8	Schematic Drawings	18
Oversized Loads	9	This Could be You	19
Frame Fixings	10	Videos	21
System Controls	11	About Us	22
Autodown Function	12	A Global Leader	23
		Let's Chat	24



Joloda Hydraroll's Modular Rollerbed System (MRS) with Powered Cargo Rollers (PCR) offers a high degree of versatility in the air cargo industry.

Powered cargo rollers provide a seamless and controlled movement of air cargo, eliminating the need for manual pushing or relying on gravity.

This feature ensures safe and efficient loading and unloading processes in diverse environments. Whether it's loading heavy cargo onto trucks, transferring goods in distribution centres, or handling oversized items at airports.

introduction

The versatility of our Modular Rollerbed Systems brings numerous benefits to industries beyond manufacturing and warehouse facilities; it enhances operational efficiency by streamlining the loading and unloading processes, whilst the Powered

Cargo Rollers eliminate the need for manual labour, reducing the risk of injuries and increasing productivity. This system also enables controlled and precise movement of goods, ensuring the safety of both employees and the cargo itself.

Additionally, the modular design of the rollerbed system allows for easy integration with existing infrastructure, saving both time and effort and offering efficient, safe, and adaptable solutions to various applications and industries around the world.



AIR CARGO



BLOCK PALLETS



WAREHOUSES

slimline to streamline

The MRS PCR system is compatible with any standard trailer design; eliminating the need for extensive design modifications and saving valuable time by allowing builders to streamline their manufacturing processes.

The MRS PCR system features a slimline design, where the depth is just 68mm. This shallower profile can be easily installed, integrated, or embedded into existing trailer floors without requiring additional framework or cradles. As a result, this saves on weight and space.

The MRS PCR system can be installed within a day, enabling trailer builders to expedite production timelines and deliver trailers much quicker than ever before. This helps trailer builders to...

1. Increase customer satisfaction
2. Enable orders to be fulfilled quicker
3. Improve operational efficiencies
4. Increase productivity
5. Increase profitability
6. Utilise off-the-shelf products
7. Reduces engineering hours



plug & play

The MRS PCR system enables businesses in the Road Feeder Service industry to easily retrofit their existing trailers without the need for extensive modifications or technical expertise. The system comes fully assembled and is ready to 'plug & play' meaning businesses can benefit from the convenience and its versatility.

It's now easier than ever before to optimise air cargo loading processes, as logistics companies are no longer dependent on long lead times for special trailers; which reduces lead times and gives them more control over their operations.

The system is a more sustainable and efficient solution as it is removable and can be reinstalled into new trailers. It can be installed in any 'off-the-shelf' trailer, such as curtain siders, box trailers and temperature-controlled trailers.



1. BEFORE INSTALLATION



2. READY TO BE INSTALLED



3. SLIDING IN THE FRAMES



4. AFTER INSTALLATION

safety first

The Powered Cargo Roller System prioritises safety in several aspects, offering enhanced protection for both operators and the cargo being transported.

No Pushing

Firstly, the powered nature of the system eliminates the reliance on physical pushing from employees. This means that operators no longer need to exert physical force to load or unload cargo manually, reducing the risk of strains, injuries, and musculoskeletal issues caused by repetitive manual labour.

Controlled Loading

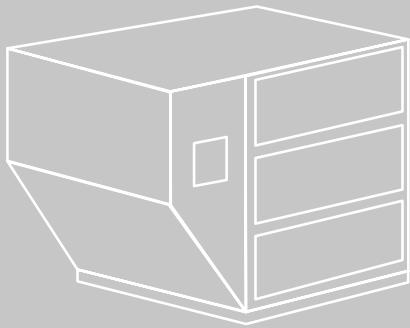
Secondly, by providing a powered solution, the system ensures that cargo is loaded and unloaded in a controlled manner, reducing the chances of mishaps, or damage caused by uncontrolled movements. Also, the system prevents operators from misusing the system meaning the loading process is conducted safely.

No Trapping or Tripping

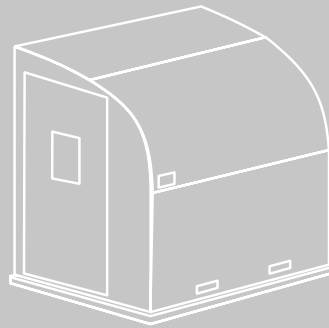
Finally, operators do not need to enter the truck during the loading and unloading process, which eliminates the risk of operators from being in front of the pallet, which prevents accidents, trip hazards, falls, or being struck by moving cargo.



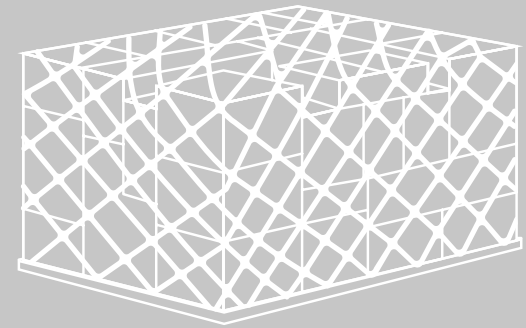
suitable for all shapes & sizes



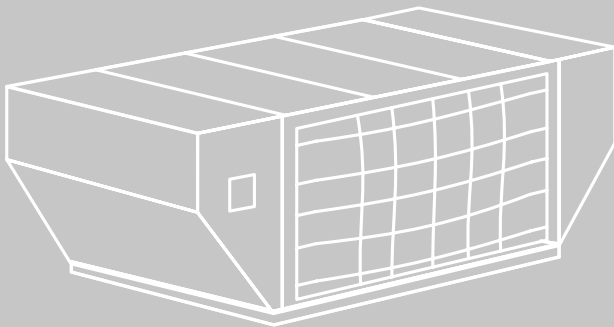
AKE & RKN



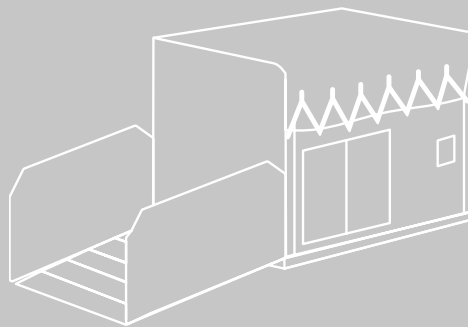
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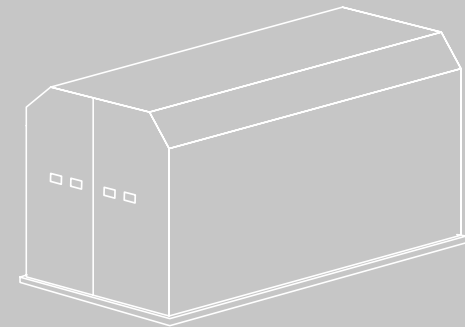
PMC



LD



HMA STALLS



SPECIAL AIR CARGO CONTAINERS

oversized loads

The MRS PCR system offers a safe and efficient solution for loading oversized air cargo, including aerospace engines.

The system helps air freight companies accommodate oversized air cargo loads, as it can load a 13.6m trailer in 90 seconds.

With the PCR system, the loading and unloading process ensures the operation is conducted in a controlled manner and therefore, increases operational efficiency. This, in turn, reduces downtime and improves overall productivity for logistics companies.

Finally, the PCR system eliminates the use of forklifts, as oversized cargo can be loaded from the rear (rather than the side) directly onto the loading platform onto the rear of the trailer.



frame fixings

The first frame (at the bulkhead) is bolted into the bulkhead, whilst frames are also fixed to the vehicle floor either using clamping brackets or plastic clamping profiles.

Clamps for Wooden Floor

For curtain-sider or flatbed trailer applications, clamping brackets are essential to fix and secure the frame to the vehicle's floor.

Clamp for Thermal Floor

Whilst for box or thermal floor trailers, clamping profiles can be used to secure the frame to the vehicle between either sidewall. There is no requirement to drill holes.



CLAMP FOR WOODEN FLOOR



CLAMP FOR THERMAL FLOOR

system controls

The MRS-PCR comes with two control boxes. One for the pneumatic lifting and lowering of the rollerbed and powered cargo roller sections. The other box holds the electric controls for the powered cargo rollers.

The powered cargo rollers are operated by a handheld controller which is stored in a stainless steel box.

Both versions of the pendant controllers work with a so-called 'dead-man' switch. When released the system comes to an immediate stop.

Additionally, the controllers hold an 'autodown e-stop'. When pressed, all air is immediately released from the system lowering both the rollerbed and the powered cargo rollers.

The version with standard controls allows only the activation of the PCR units. Section lifting and lowering are done from the pneumatic control box.

The version with an advanced controller allows both the pneumatic and electric controls operated from the handheld controller.



PNEUMATIC & ELECTRICAL CONTROL BOX



PENDANT CONTROLLER



ADVANCED CONTROLLER

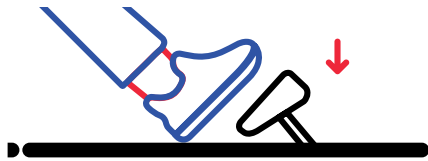
autodown function

The MRS PCR system comes complete with an 'Autodown' safety feature; an electronic bypass valve, as standard. This is integrated into both control box types.

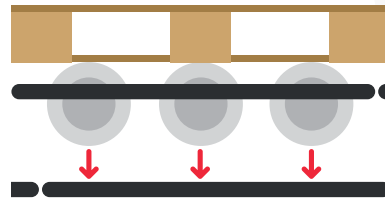
In the scenario that a section of rollerbed isn't lowered before the vehicle sets off, the autodown feature will lower any raised rollers to prevent the cargo from being live whilst in transit.

The electronic valve is connected to the vehicle's brake light, so when the driver presses the brake pedal, it sends an electronic pulse to the control box and activates the exhaust valve. It will lower all 'live' sections when the electronic pulse is received.

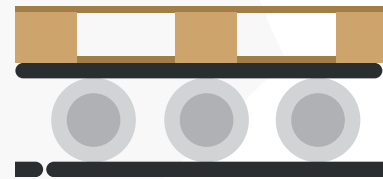
Additionally, the handheld controller is also fitted with an autodown button. In case of emergency, the operator can press this button to release all air from the system.



1. BRAKE PEDAL DEPRESSED



2. RAISED ROLLERTRACK



3. SECURE LOAD



4. SAFE HAULAGE

basics of design

Modular rollerbed design

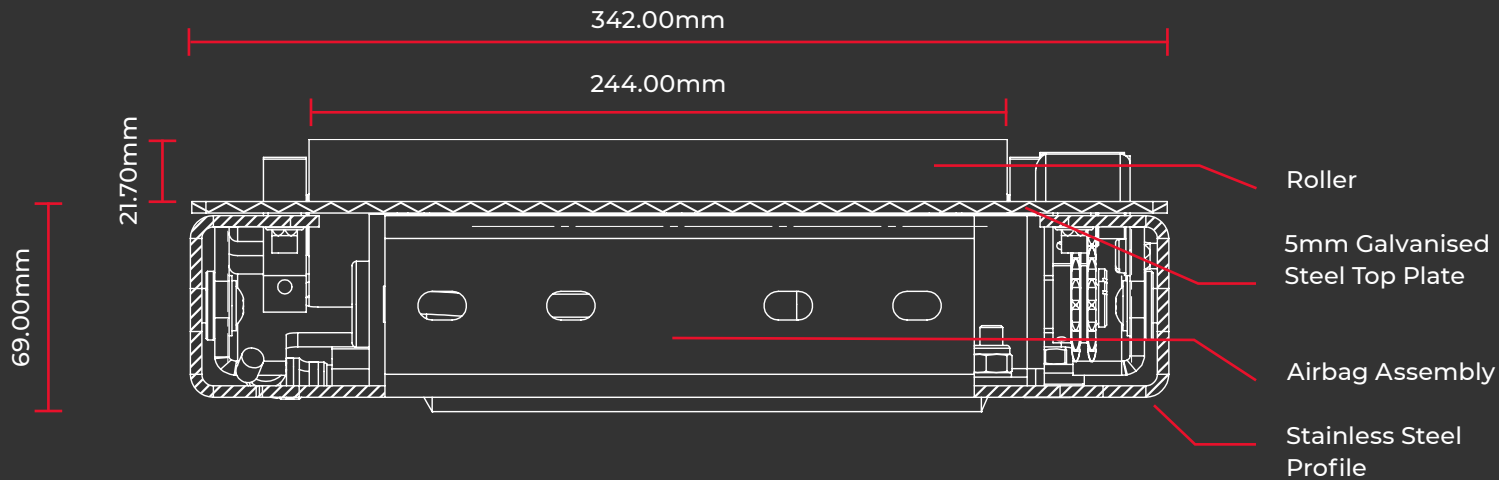
The slimline PCR design is only 68mm in height and can fit inside the MRS platform, meaning the powered cargo roller system can be easily retrofitted or installed into existing trailer floors without requiring additional framework or cradles.

The design of the frames is based on aluminium floorboards, which feature pneumatic rise and fall rollertrack modules. No welding is required to make a frame.

The frames are supplied pre-assembled and ready for installation on top of a flush floor. The system is available in either a 5 or 6-lane configuration. The final frame (at the trailer door) features pallet stops.



powered cargo roller

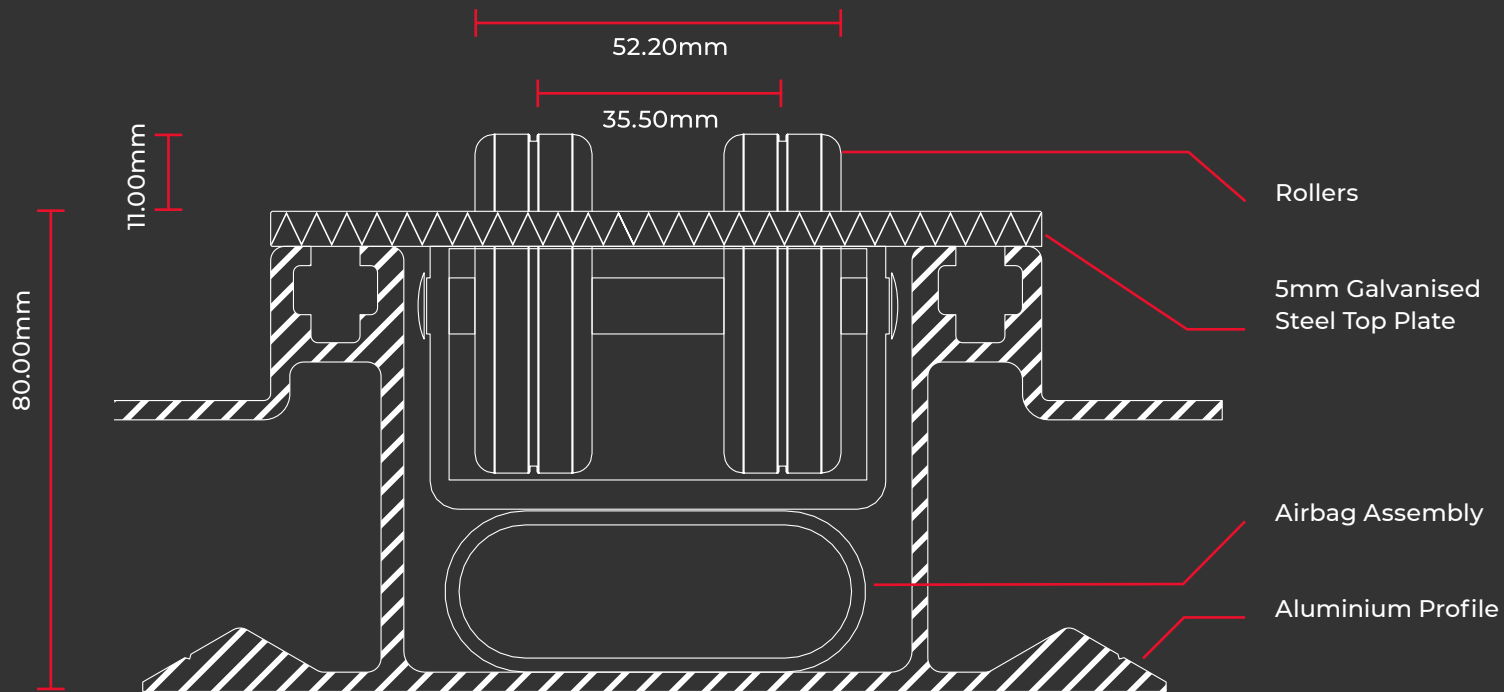


Low Height Powered Cargo Roller
The Powered Cargo Roller has a very low profile of just 68mm, making it possible to fit the Modular Rollerbed System with Powered Cargo Rollers into any standard model. As a result, it is now far quicker and more cost-effective for air cargo businesses to deploy a PCR trailer, as they no longer need to rely on specialised trailer designs.

technical specifications

Specification	Description
Lift Height (mm)	21.5
Weight (kg)	18
Roller Coating	Polyurethane 85-90 Shore-A
Speed (rpm)	30
Tangential Force (N)	2,800
Torque (Nm)	79
Airbag Pressure (psi)	33
Voltage (V)	24
Power (W)	250
Time to Load a 13.6m Trailer (Seconds)	90 (Approx)
Time to Move Load 1m (Seconds)	7 (Approx)

rollertrack types

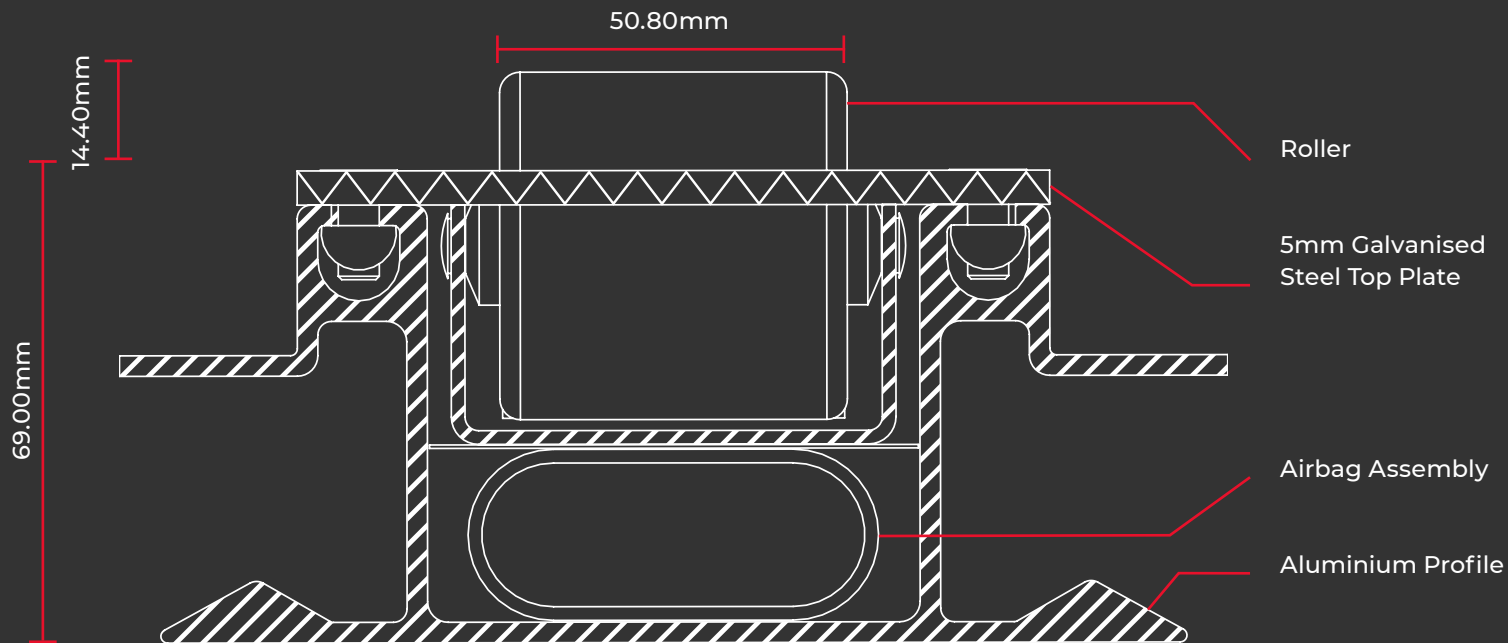


MK21 Twin Rollertrack

The MK21 twin rollertrack is the ideal solution for manoeuvring air cargo as it offers greater support to the cargo pallets with dual rollers.

The twin roller design features smaller openings in the top plates, which reduces the risk of forklifts damaging the system, reduces the volume of debris and ingress in the main channel and lowers maintenance costs.

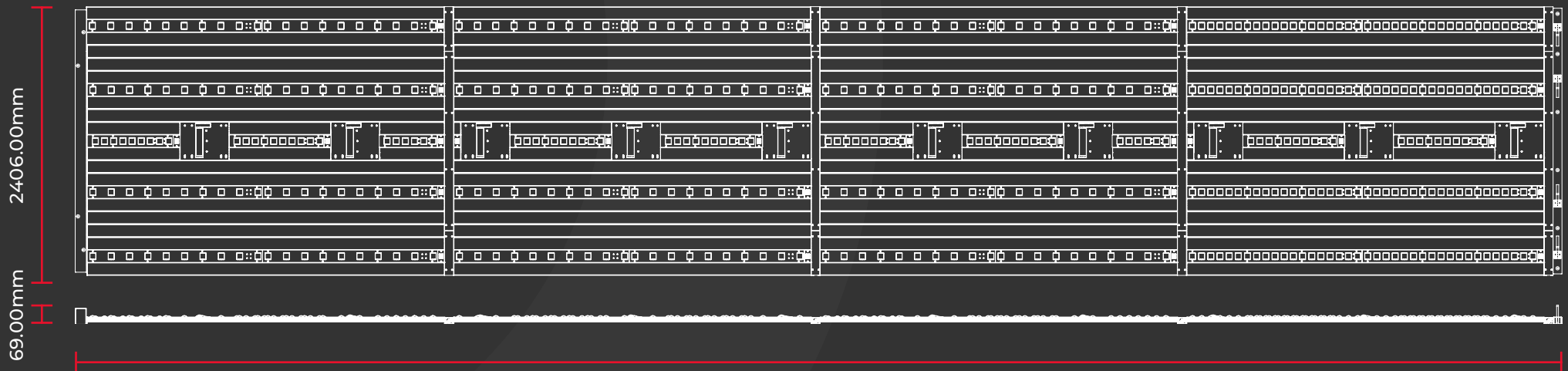
rollertrack types



MK4 Single Rollertrack
The modular rollerbed system for block pallets is configured with our MK4-type single rollertrack module ensuring that pallets have sufficient support underneath.

schematic drawings

Typical layout assembly



13,316.00mm (Though, please note the length is variable)

this could be you...





Click here

See it in action,
scan here.



about us

We help businesses lighten loads.
We are highly regarded as the world's leading loading and unloading solutions provider in the logistics industry.

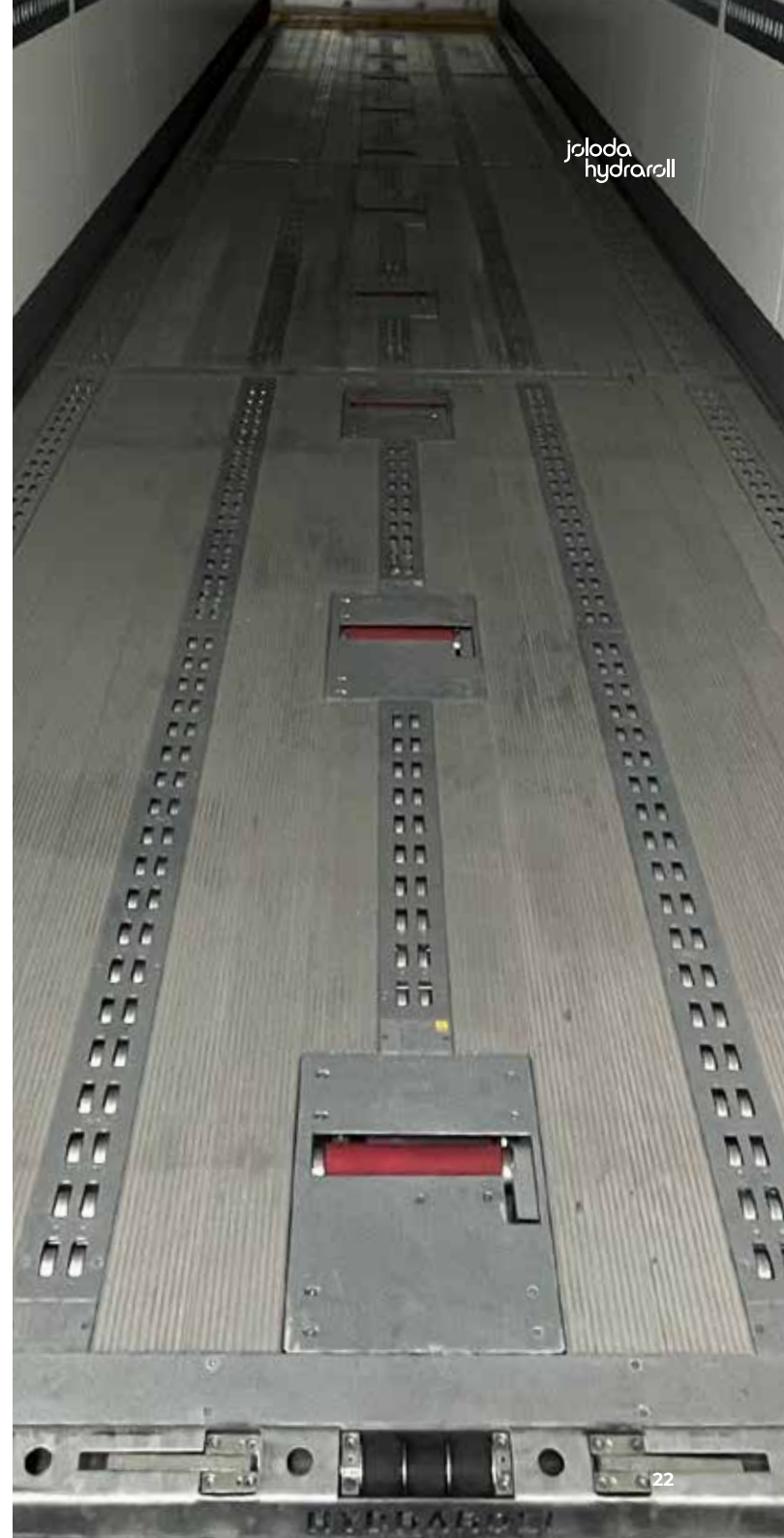
Over the last 60 years, we've helped thousands of businesses streamline their logistics operations to be more cost-efficient, more sustainable, and more health and safety-conscious.

We're more than 'off-the-shelf'. We're the pioneers, the creators, the experts. We design, manufacture, install, service and maintain world-class loading solutions. We can help innovate, automate and streamline your end-of-production line problems, wherever you are.

We have an experienced network of 30+ distributors that offer a helping hand to have experts in local standards.

We have installed more than 500,000 loading systems and through our extensive knowledge and expertise, we inspire change and make manual loading solutions more efficient and effective.

We are the world leaders in loading solutions, and we're here to lighten your load.



a global leader, with local partners



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- Czech Republic
- Finland
- France
- Germany
- Italy
- Netherlands
- Poland
- Portugal
- Spain
- Sweden
- UK

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- United Arab Emirates
- India
- Japan
- Korea
- Malaysia
- Saudi Arabia
- Taiwan
- Thailand
- Turkey

Africa

- Egypt
- South Africa

Americas

- Argentina
- Brazil
- Chile
- Columbia
- Ecuador
- Mexico
- USA

Oceania

- Australia

if you have any questions, please get in touch!



Learn more about
Joloda Hydraroll...
watch our video

LIGHTENING LOADS AROUND THE WORLD

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