



VERY NARROW AISLE - AUTOMATED WAREHOUSE TRUCK

Rocla

A VNA FOR EVERY NEED

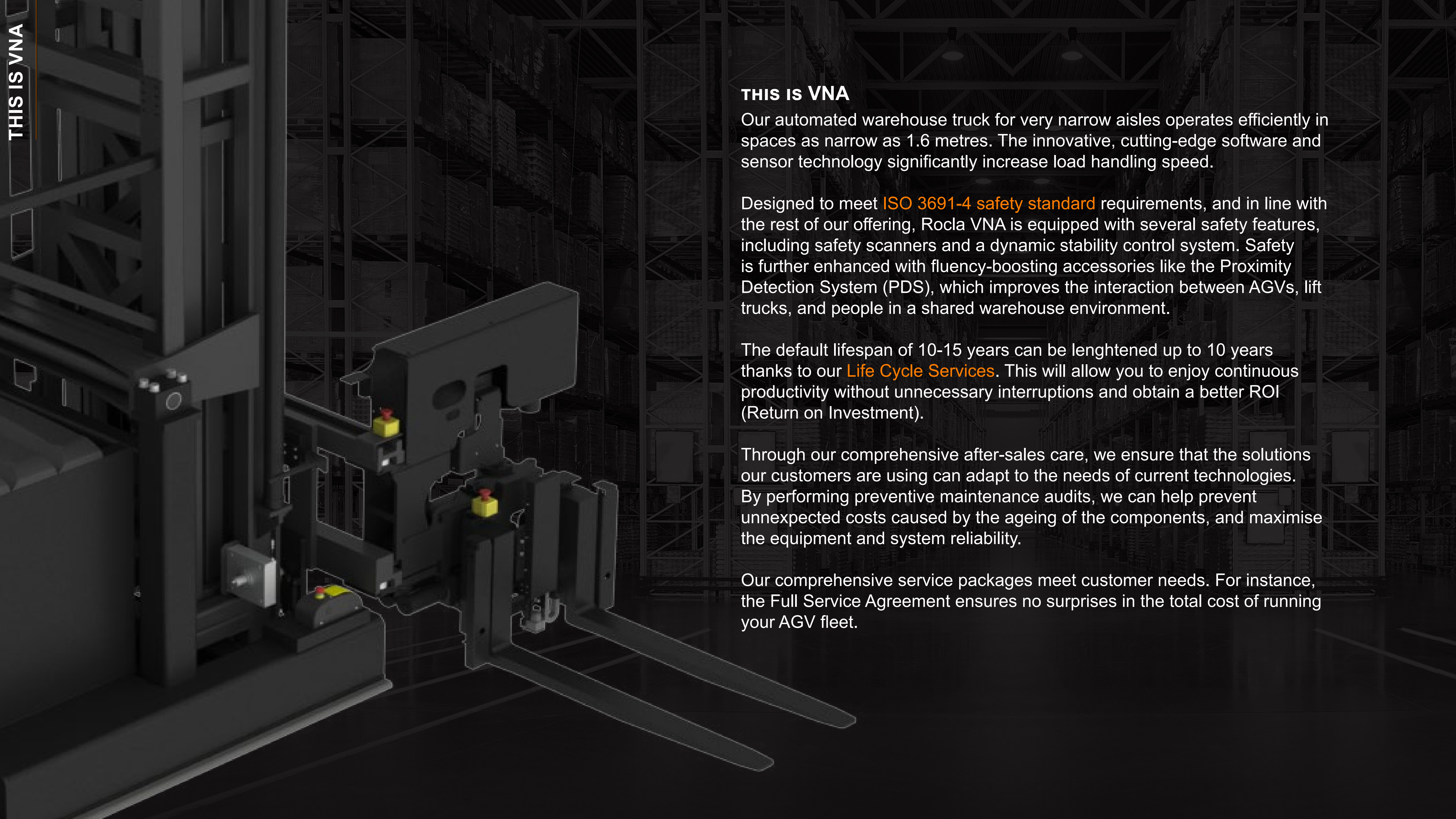
The Very Narrow Aisle Automated Warehouse Truck (VNA AWT) is an ideal solution for large warehousing operations where optimising storage space is crucial.

Rocla AGV provides solutions tailored to customer needs. The VNA comes with telescopic load handling forks, or a turret head for trilateral turning ($-90^{\circ} \dots 0^{\circ} \dots +90^{\circ}$) of load forks for more versatile pallet handling.

This AWT can operate in aisles as narrow as 1.6 m, handle loads up to 1200 kg, and has a lifting capacity of up to 12.75 m. Additionally, Rocla VNAs are engineered to function seamlessly in open workspaces without the necessity of establishing restricted areas, giving flexibility for more dynamic operations.

Thanks to our solid experience of 15+ years in developing VNA systems, we are capable of offering a reliable solution suitable for various applications, including distribution centres, warehouses, work-in-progress storage, or replenishment of active picking locations. It excels in scenarios requiring high storage capacity per square metre.





THIS IS VNA

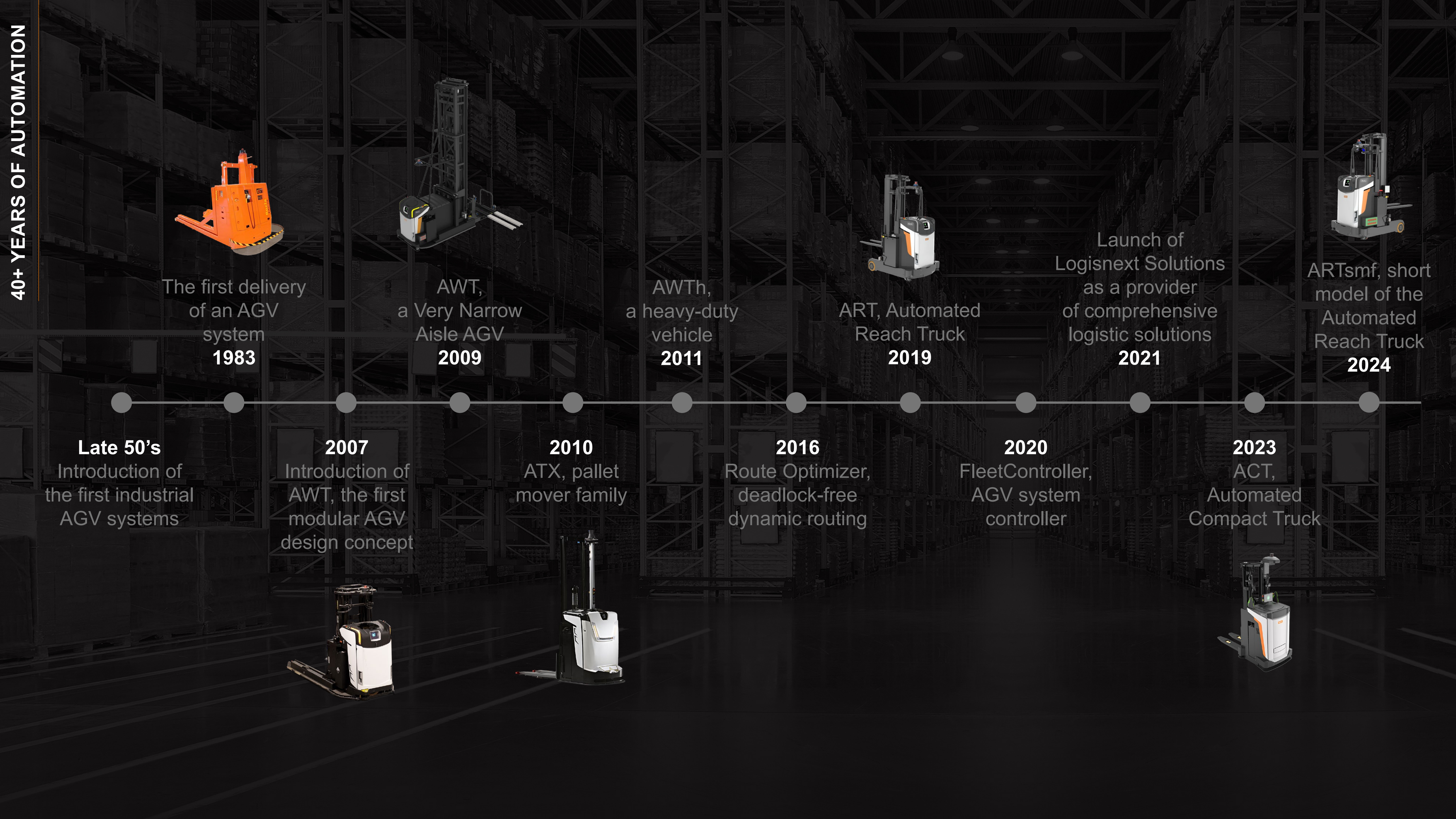
Our automated warehouse truck for very narrow aisles operates efficiently in spaces as narrow as 1.6 metres. The innovative, cutting-edge software and sensor technology significantly increase load handling speed.

Designed to meet **ISO 3691-4 safety standard** requirements, and in line with the rest of our offering, Roca VNA is equipped with several safety features, including safety scanners and a dynamic stability control system. Safety is further enhanced with fluency-boosting accessories like the Proximity Detection System (PDS), which improves the interaction between AGVs, lift trucks, and people in a shared warehouse environment.

The default lifespan of 10-15 years can be lengthened up to 10 years thanks to our **Life Cycle Services**. This will allow you to enjoy continuous productivity without unnecessary interruptions and obtain a better ROI (Return on Investment).

Through our comprehensive after-sales care, we ensure that the solutions our customers are using can adapt to the needs of current technologies. By performing preventive maintenance audits, we can help prevent unexpected costs caused by the ageing of the components, and maximise the equipment and system reliability.

Our comprehensive service packages meet customer needs. For instance, the Full Service Agreement ensures no surprises in the total cost of running your AGV fleet.



Late 50's
Introduction of
the first industrial
AGV systems



The first delivery
of an AGV
system
1983



2007
Introduction of
AWT, the first
modular AGV
design concept



AWT,
a Very Narrow
Aisle AGV
2009



2010
ATX, pallet
mover family

AWTh,
a heavy-duty
vehicle
2011

2016
Route Optimizer,
deadlock-free
dynamic routing



ART, Automated
Reach Truck
2019

2020
FleetController,
AGV system
controller

Launch of
Logisnext Solutions
as a provider
of comprehensive
logistic solutions
2021

2023
ACT,
Automated
Compact Truck

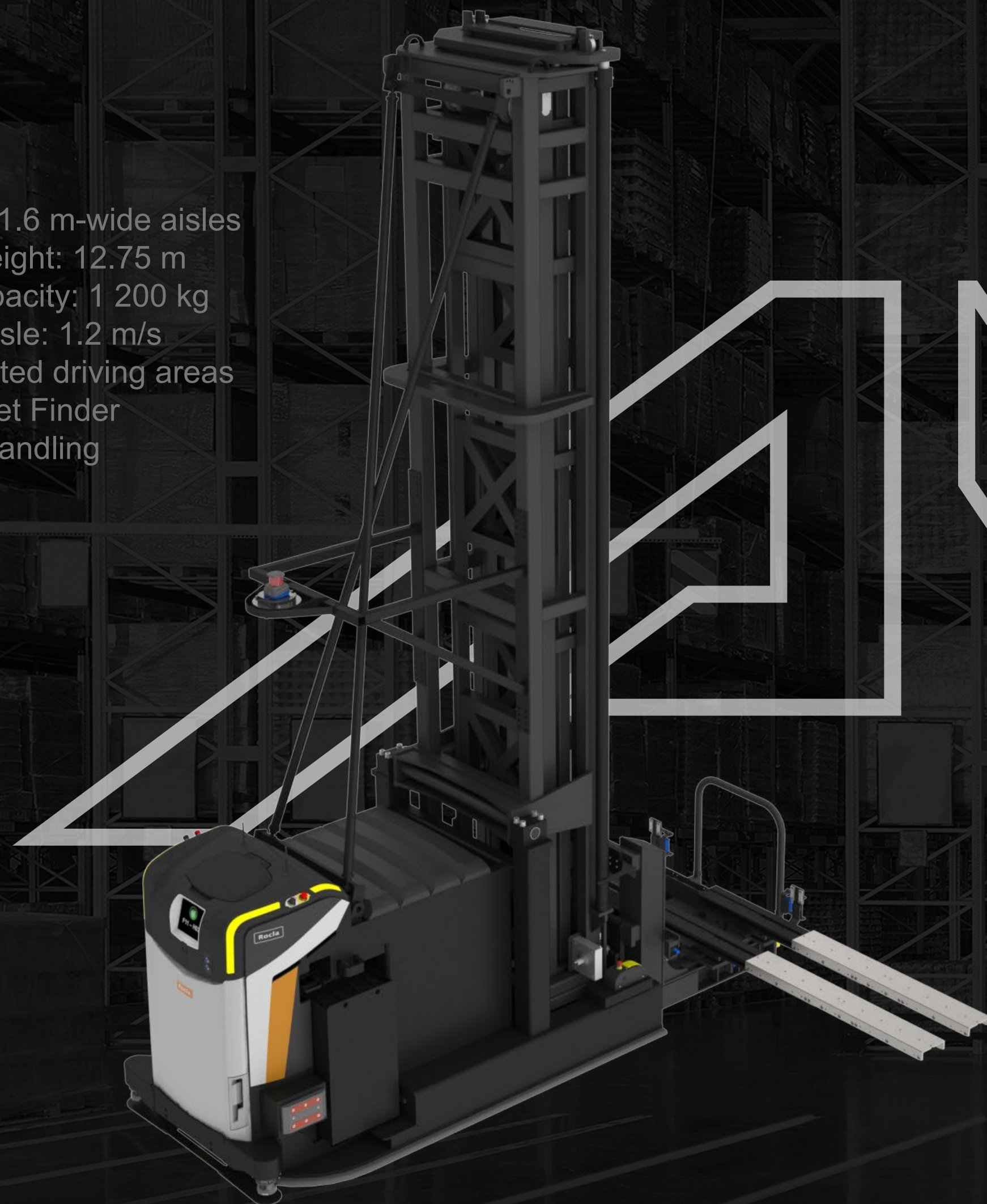


ARTsmf, short
model of the
Automated
Reach Truck
2024



VNA^{CT}

Able to operate in 1.6 m-wide aisles
Maximum lifting height: 12.75 m
Maximum load capacity: 1 200 kg
Driving speed in aisle: 1.2 m/s
No need for restricted driving areas
Side-shift and Pallet Finder
Open-type pallet handling

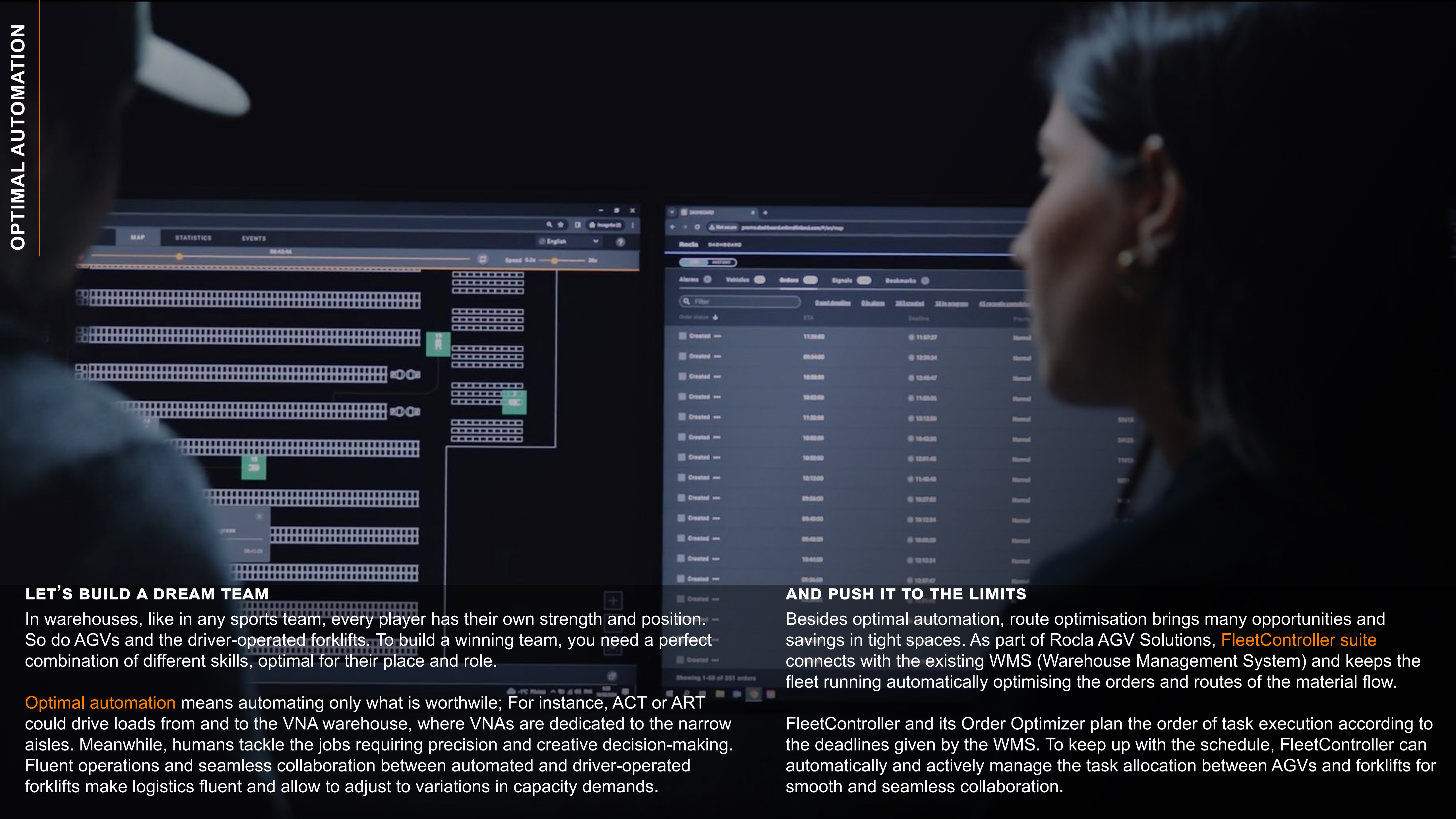


VNA^{CS}

Able to operate in 1.8 m-wide aisles
Maximum lifting height: 12.5 m
Maximum load capacity: 1 200 kg
Driving speed in aisle: 1.2 m/s
No need for restricted driving areas
Pallet Finder
Floor-level load handling possibility



A SOLUTION TO EVERY NARROW AISLE: WITH THESE TWO MODELS WE ARE ABLE TO TAILOR THE SOLUTION TO YOUR SPECIFIC NEEDS IN WAREHOUSES WHERE STORAGE SPACE IS AT A PREMIUM.



LET’S BUILD A DREAM TEAM

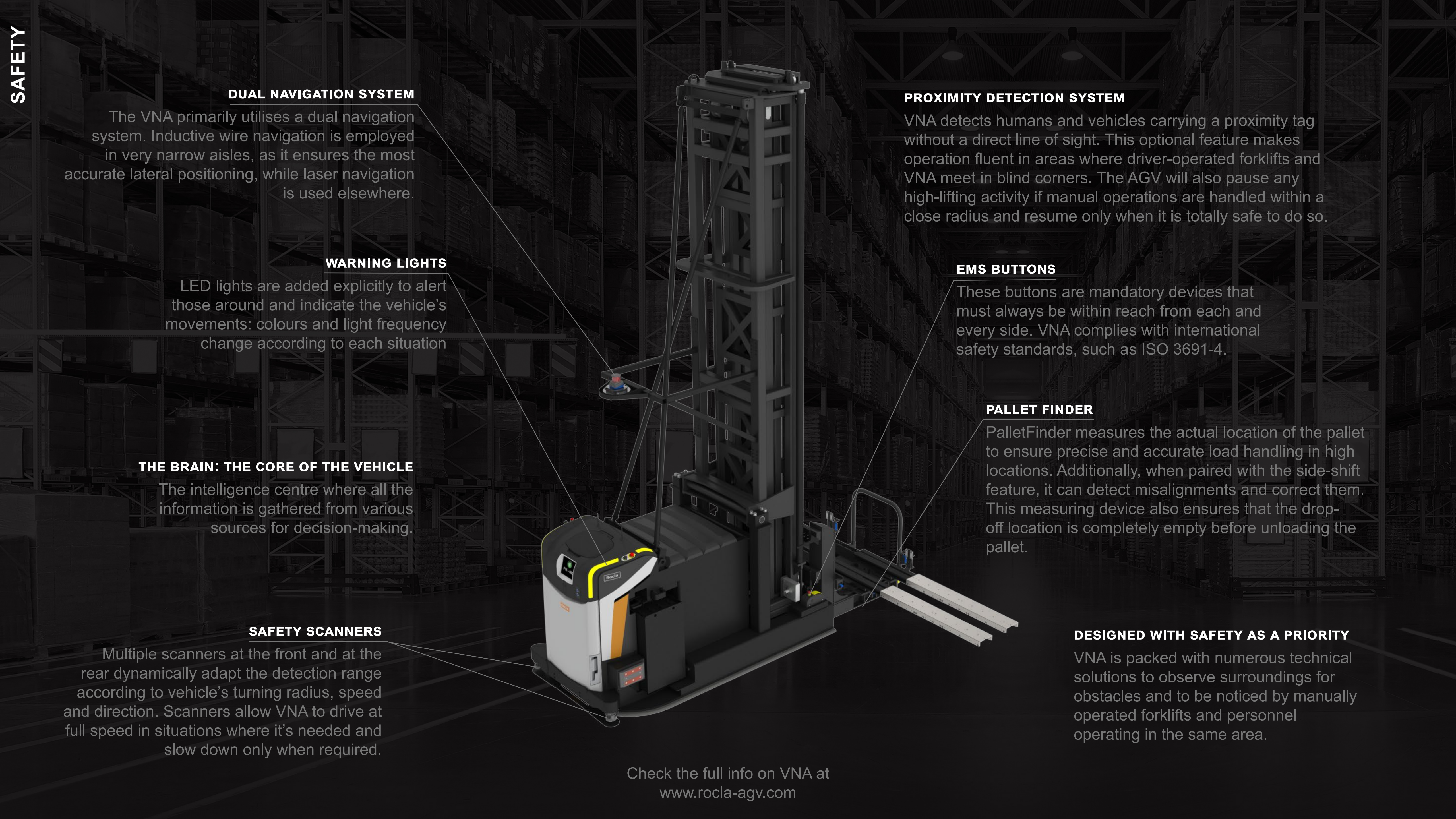
In warehouses, like in any sports team, every player has their own strength and position. So do AGVs and the driver-operated forklifts. To build a winning team, you need a perfect combination of different skills, optimal for their place and role.

Optimal automation means automating only what is worthwhile; For instance, ACT or ART could drive loads from and to the VNA warehouse, where VNAs are dedicated to the narrow aisles. Meanwhile, humans tackle the jobs requiring precision and creative decision-making. Fluent operations and seamless collaboration between automated and driver-operated forklifts make logistics fluent and allow to adjust to variations in capacity demands.

AND PUSH IT TO THE LIMITS

Besides optimal automation, route optimisation brings many opportunities and savings in tight spaces. As part of Rocla AGV Solutions, **FleetController suite** connects with the existing WMS (Warehouse Management System) and keeps the fleet running automatically optimising the orders and routes of the material flow.

FleetController and its Order Optimizer plan the order of task execution according to the deadlines given by the WMS. To keep up with the schedule, FleetController can automatically and actively manage the task allocation between AGVs and forklifts for smooth and seamless collaboration.



DUAL NAVIGATION SYSTEM

The VNA primarily utilises a dual navigation system. Inductive wire navigation is employed in very narrow aisles, as it ensures the most accurate lateral positioning, while laser navigation is used elsewhere.

WARNING LIGHTS

LED lights are added explicitly to alert those around and indicate the vehicle's movements: colours and light frequency change according to each situation

THE BRAIN: THE CORE OF THE VEHICLE

The intelligence centre where all the information is gathered from various sources for decision-making.

SAFETY SCANNERS

Multiple scanners at the front and at the rear dynamically adapt the detection range according to vehicle's turning radius, speed and direction. Scanners allow VNA to drive at full speed in situations where it's needed and slow down only when required.

PROXIMITY DETECTION SYSTEM

VNA detects humans and vehicles carrying a proximity tag without a direct line of sight. This optional feature makes operation fluent in areas where driver-operated forklifts and VNA meet in blind corners. The AGV will also pause any high-lifting activity if manual operations are handled within a close radius and resume only when it is totally safe to do so.

EMS BUTTONS

These buttons are mandatory devices that must always be within reach from each and every side. VNA complies with international safety standards, such as ISO 3691-4.

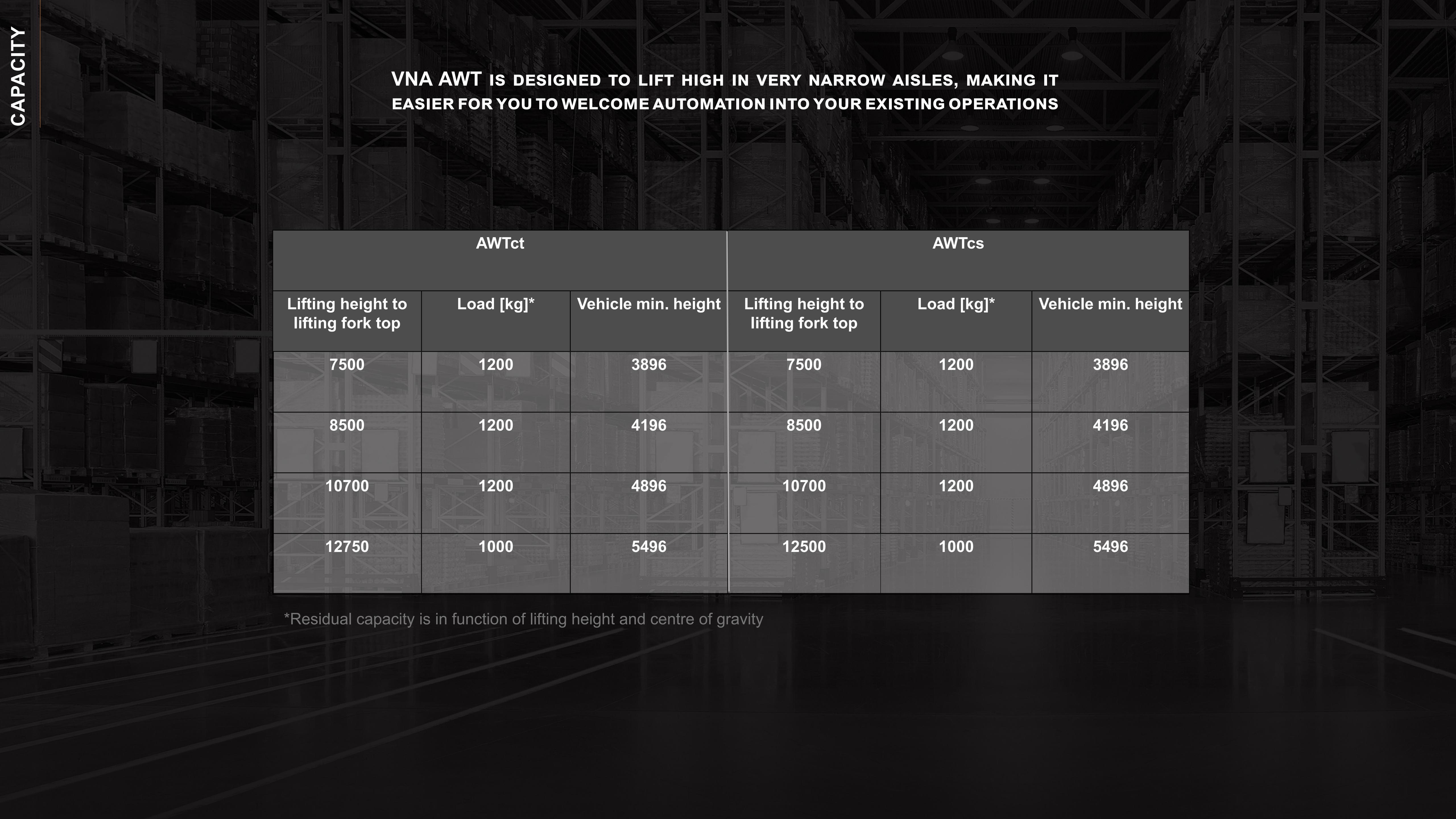
PALLET FINDER

PalletFinder measures the actual location of the pallet to ensure precise and accurate load handling in high locations. Additionally, when paired with the side-shift feature, it can detect misalignments and correct them. This measuring device also ensures that the drop-off location is completely empty before unloading the pallet.

DESIGNED WITH SAFETY AS A PRIORITY

VNA is packed with numerous technical solutions to observe surroundings for obstacles and to be noticed by manually operated forklifts and personnel operating in the same area.

Check the full info on VNA at
www.roccla-agv.com



VNA AWT IS DESIGNED TO LIFT HIGH IN VERY NARROW AISLES, MAKING IT EASIER FOR YOU TO WELCOME AUTOMATION INTO YOUR EXISTING OPERATIONS

AWTct			AWTcs		
Lifting height to lifting fork top	Load [kg]*	Vehicle min. height	Lifting height to lifting fork top	Load [kg]*	Vehicle min. height
7500	1200	3896	7500	1200	3896
8500	1200	4196	8500	1200	4196
10700	1200	4896	10700	1200	4896
12750	1000	5496	12500	1000	5496

*Residual capacity is in function of lifting height and centre of gravity

MITSUBISHI LOGISNEXT EUROPE OY IS A TECHNOLOGY-DRIVEN DESIGNER AND MANUFACTURER OF LOGISTIC SOLUTIONS WITH A PORTFOLIO OF DRIVER-OPERATED FORKLIFTS, AUTOMATION SYSTEMS, AND RELATED SOLUTIONS AND SERVICES. THE AGV OPERATIONS WITHIN LOGISNEXT SOLUTIONS ARE KNOWN AS ROCLA AGV SOLUTIONS AND OPERATE GLOBALLY WITH HIGHLY SKILLED STAFF AND 40+ YEARS OF EXPERIENCE.

Want to know more?

Rocla

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