

- Are you looking for intra-logistics expertise with paper industry experience?
- Do you want to learn how AGV technology could reduce your costs?
- Would you like to automate your internal transports with availability guarantee?



Rocla AGV solutions for

Paper and Board Manufacturing

Rocla

TOROMONT
Material Handling

Rocla AGV solutions for Paper and Board Manufacturing

Smart automation, intra-logistics expertise, and full-service support

Optimized transports with a low total cost of ownership

When working in three shifts, expectations for internal logistics availability are high. The transport solution should be scalable, customizable, and able to meet your 24/7 product flow.

Rocla AGV solutions for paper and board manufacturing offer a combination of technology, maintenance, and expert skills. We will automate your internal transports and guarantee the AGV system availability. With Rocla, you will always have a real-time view of your AGV fleet and transport orders.

We will design the solution according to your needs, including warehouse layouts, transport capacity, and availability requirements.

Our expert team will implement the AGV system without interruptions to your production. We will also train your operators with industry best practices.

Rocla service agreements cover all preventive maintenance needs. You can select a suitable service level from basic support to guaranteed availability.

Our FleetController software suite manages the AGV automation and real-time vehicle monitoring. We can also deliver the warehouse management system and manage the integrations on your behalf.

FleetController software can connect directly with the remote support, allowing cost-efficient remote diagnostics and support for your onsite maintenance.

What are your benefits?



Logistics operator

- Increase control through real-time monitoring
- Availability guarantee
- Remote support for onsite maintenance
- Zero collisions



Logistics manager

- Increase warehouse turnover speed
- Just in-time transports
- Follow-up and optimize transport performance
- Improve logistics quality and efficiency



Management

- Reduce costs through automation
- Optimize intra-logistics and warehouse operations
- Save energy and build sustainable operations
- Zero transport damage



Maintenance

- Improve preventive maintenance
 - Remote diagnostics
- Tools for enabling high availability
- Insight from a maintenance data analysis



The results-driven mindset with industry experience



Paper industry know-how

We guide our solution planning and maintenance with your logistics objectives. We make sure your total cost of AGV ownership stays down.



Experience

Since 1983, we have delivered over 500 projects and thousands of vehicles, 75 % of which are still in active use.



Visibility

The brand new Rocla Fleet-Controller and Dashboard let your operators monitor, optimize and maintain your AGV fleet with real-time information.



Global reach

As a group company, Rocla's operations are backed up by Mitsubishi Heavy Industries and Mitsubishi Logisnext. Our support is at your service around the clock.



Quality and design

We manufacture 12,500 forklifts per year, including AGVs. Every vehicle goes through extensive testing. We have earned RedDot awards for design. Many of our AGV features are patented.



24/7 support

Rocla AGV Service Agreements offer availability guarantee and multiple results-driven options to meet your maintenance and support requirements regardless of time and place.



Efficiency

The new Rocla FleetController offers optimization algorithms that, among many other benefits, increase AGV efficiency compared to traditional system controllers.



Data-driven optimization and maintenance

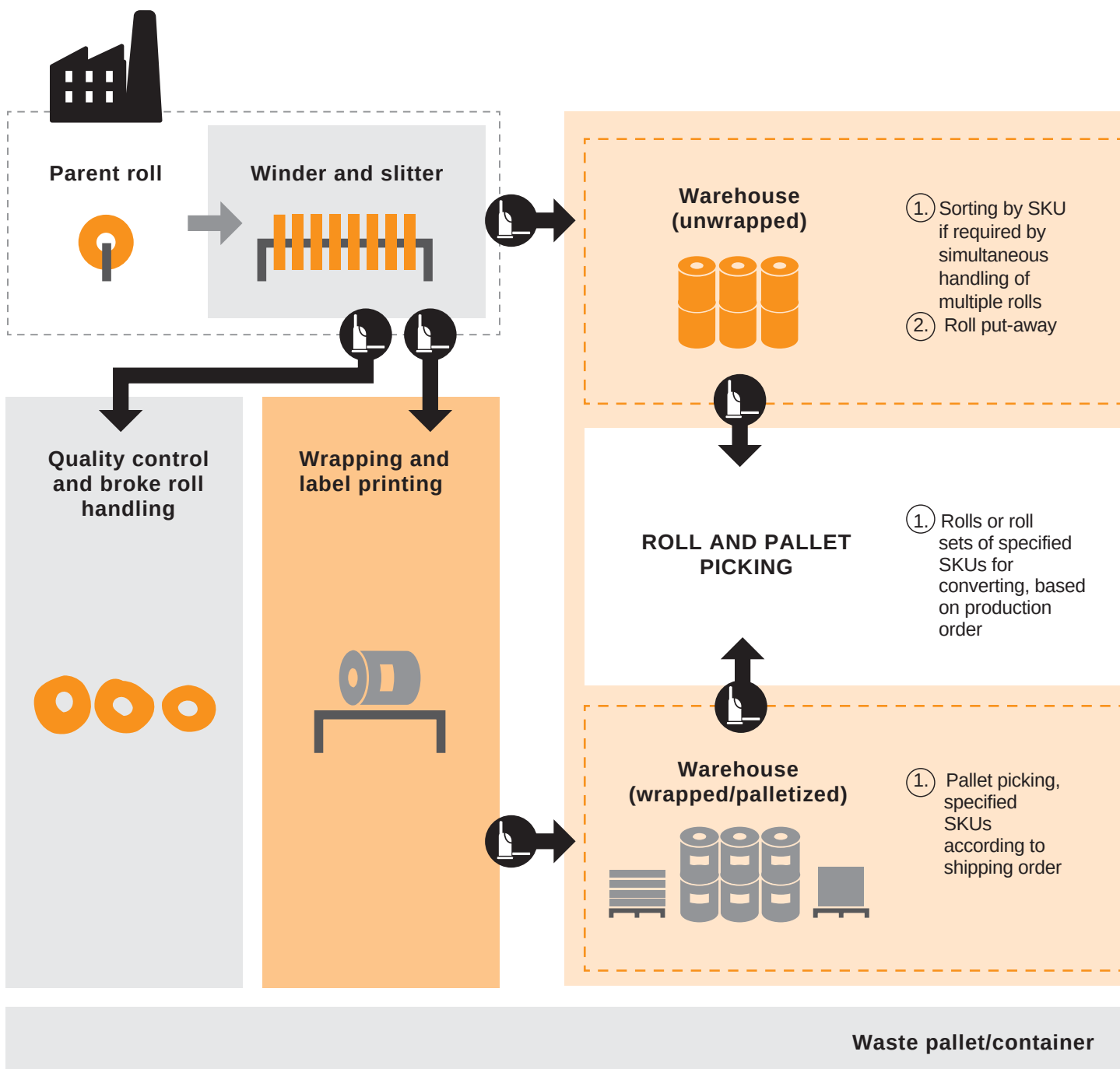
Rocla's cloud-based data platform offers tools for cost-efficient remote diagnostics and incident resolution, data analysis, and process optimization.



Original AGV design

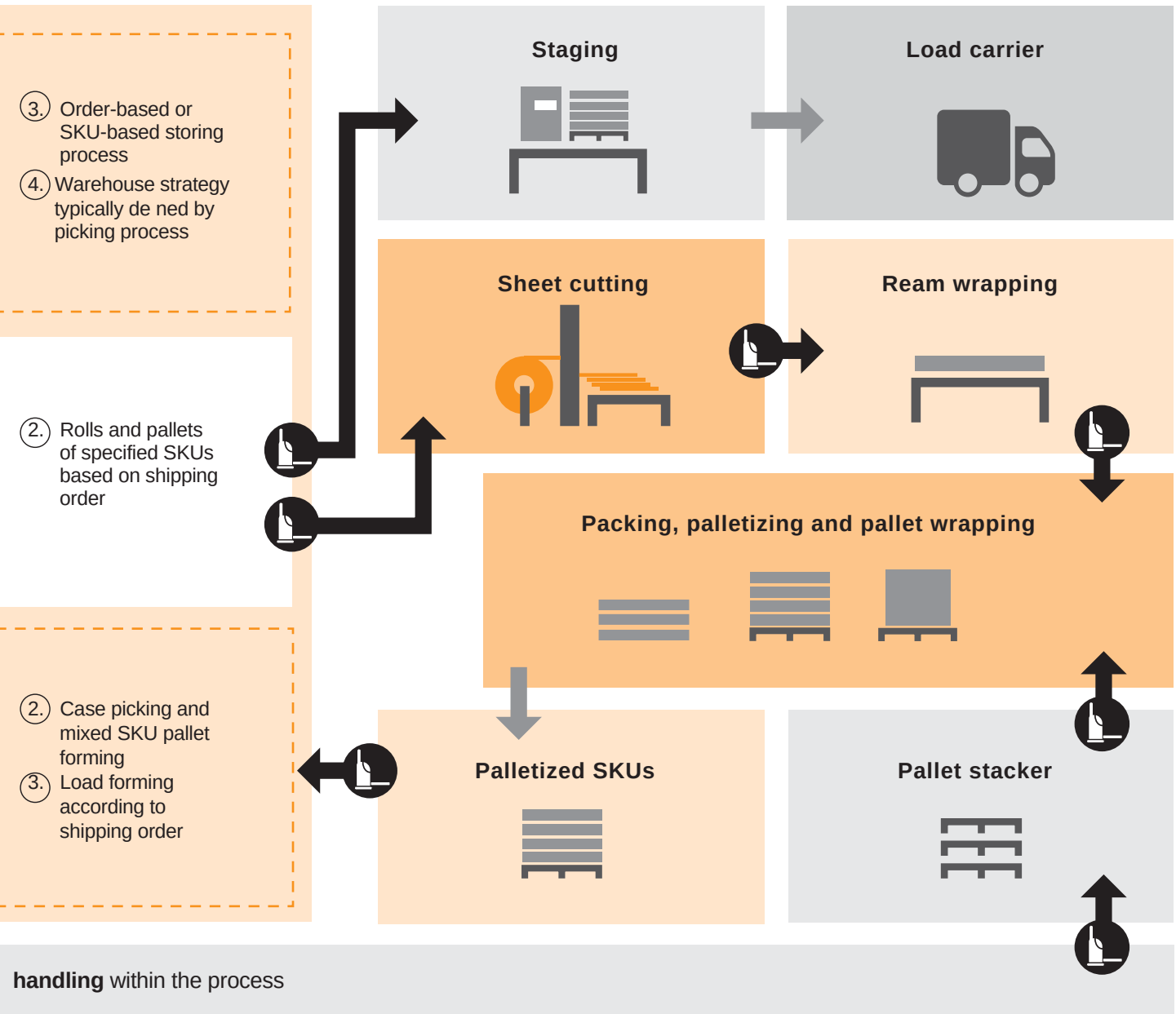
Our vehicles are purpose-built without compromises of the kitted vehicles. The modular structure allows the use of the same components as in forklifts, increasing cost-efficiency.

Rocla for Paper and Board Manufacturing: Automated



RoclA AGV transports






transports with real-time monitoring





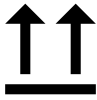
RoclA AGVs with lifecycle services:

Complete solution with full-service maintenance

SOLUTION DESIGN AND RAMP-UP	 <p>Audit</p>	<ul style="list-style-type: none"> • Assessment of intralogistic needs and feasibility study • Solution for handling and warehousing • Maintenance process, life-cycle and spare part criticality assessments • Financial assessment 	
	 <p>Solution design</p>	<ul style="list-style-type: none"> • Warehousing and staging strategy • Intralogistics process design • AGV system layout and route design • Vehicle options adjustment • Software integration plan 	
	 <p>Implementation</p>	<ul style="list-style-type: none"> • Integration to information systems (e.g., Warehouse Management System) • Interfacing with facility equipment • Factory acceptance testing at RoclA • Installation and commissioning onsite • Site acceptance test 	
PRODUCTION	 <p>Maintenance and support</p>	<ul style="list-style-type: none"> • Usage-based and scheduled maintenance • Software updates • Spare part logistics with optional consignment inventory • Onsite repairs • Training of your logistics personnel • Retrofits and upgrades 	RoclA AGV service agreements
	 <p>Monitoring, remote diagnostics and data analytics</p>	<ul style="list-style-type: none"> • Route and order optimization • Increased capacity and automated upkeep routines • Equipment remote monitoring • Service dashboard with real-time operational monitoring • Maintenance and availability statistics 	RoclA fleet-controller



How can you save with a Rocla AGV solution?



Intralogistics automation

- Avoid increases in personnel cost
- Deduct automation investment
- Increase the intralogistics speed and capacity
- Speed up carrier loading by predictive staging



Warehouse

- Increase warehouse turnover speed
- Utilize warehouse space efficiently
- Save money compared to manual warehouse operations
- Reduce the need to take inventory
- Implement without production stops



Energy

- Save energy through efficient technology and route optimizing
- Environmental savings, such as warehouse lighting



Durability & safety

- Typical lifetime of an AGV is 10 years
- Extend up to 20 years with controlling electronics upgrade
- Zero collisions
- Remove transport damage losses



Maintenance

- Increased AGV uptime
- Quick support
- Cost-efficient operations
- Capital cost-savings



Monitoring and tracking

- Monitor operations in real-time, recognize incidents immediately
- Pinpoint process bottlenecks
- Locate handled goods and trace orders in real-time

Examples of our paper and board manufacturing references

Kabel Premium Pulp & Paper

- Installation handling around a thousand different pallet sizes
- The intermediate warehouse holds 300 – 500 pallets
- In the mill, 3,000 tons of sheet paper is handled daily
- Key benefits: Cost reductions in maintenance, decreased transportation damages, and high availability

Smurfit Kappa Parenco

- Two paper machines produce graphical and packaging papers 600,000 tons per year
- A fleet of 16 Rocla AGVs, equipped with automated battery exchange system, move up to 4,500 tons of paper daily
- Key benefits: Previous annual transport losses of 100 tons cut to zero, high availability, and constant operations

Sappi Alfeld

- Rolls of paper weighing up to 5 tons are transported using Rocla's AGVs
- History with zero accidents
- Rocla warehouse management system and interfaces to the roll conveyor system and the mill execution system
- Key benefits: Safety, stable operations, and reduced fixed costs



Do you want to know more?

Please visit www.rocla-agv.com for more information.

Contact us, your local dealer in Canada:

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