# Extend your cho Introducing the Kalmar FastCharge<sup>™</sup> AGV.

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## Proven experience.

With nearly 20 years of delivering fully automated solutions to container terminals globally, the Kalmar FastCharge<sup>™</sup> AGV is built on a proven automation platform you can rely on.

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Constructed on an optimised steel platform that can handle loads of up to 70 tonnes, they are powered by an eco-efficient electric power system, making them easier and more cost effective to maintain and run than traditional diesel powered machines. Our new AGVs can be easily integrated into your existing operational model and are an alternative way to automate the movement of containers from your quayside to landside operations. Kalmar FastCharge AGVs, extending your choice.

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# Reduce emissions, reduce costs.

Using an all electric power system has many benefits for you:



Electrically powered drive systems produce no emissions at source, reducing your carbon footprint and boosting your environmental credentials.



Electric power systems require less maintenance and have longer service periods than traditional power systems. All service points are easily accessible, which helps make service tasks quicker and safer.



Electricity is a substantially cheaper and cleaner fuel source than diesel, reducing your running costs from day one of operation.



Will help you meet future emissions and environmental standards, readying you for a low carbon future.



Our electric AGVs produce much less light and noise pollution when in operation than diesel powered AGVs.



Our electric powered AGVs capture regenerative energy while braking and can be FastCharged in minutes, helping to increase operational efficiency.



The lifetime of your Lithium Ion battery system will be maximised through the Kalmar intelligent thermal and charging management system.



### Kalmar FastCharge<sup>™</sup>.

Kalmar FastCharge eliminates the need for battery swapping as your AGVs will be able to be opportunity charged at strategically placed charging stations while they are in operation. Re-charging can be done in minutes, which means your AGVS will spend more time moving containers and less time idle.



### Tested and ready to go.

In 2016 PSA Singapore, the world's busiest transshipment hub, ordered a large number of automated AGVs from Kalmar. Operating at their Pasir Panjang terminal since mid 2017, the Kalmar AGVs have a key role in PSA's automation journey. Kalmar developed and delivered the onboard AGV navigation system in 2013, that PSA is using today for all its AGVs.

## A platform you can rely on.

You can choose from an integrated turnkey solution or take advantage of Kalmar Key, which enables you to integrate the Kalmar TLS into your current terminal operating system through a series of open application interfaces.

#### Proven navigation and positioning systems.

The Kalmar Navigation System is easily configurable to meet your precise requirements and can operate across a mixed fleet of AGVs from different suppliers. This system has been designed with safety as a primary focus, it is also ready to integrate new technologies that can help improve its performance and reduce long term operating costs. Our safety rated positioning system can be built into your current infrastructure or adapted to meet your existing positioning system requirements.

#### Kalmar Terminal Logistics Systems

The Kalmar TLS can manage your entire AGV fleet and will continually help to optimise your fleet's performance. The Kalmar TLS will also identify the best time to FastCharge your machine while in operation.

## The right support.

Our job doesn't stop once we deliver your new Kalmar FastCharge AGV system. We also offer a range of support services that help keep your new equipment running at its optimal best. With a global network of over 1500 service and support staff in 120 countries, we will always have someone nearby to give you the support you need.

#### Kalmar Care, making sure your business never stops.

We can offer you four different types of service and maintenance contracts, for any brand of equipment. Each is designed to help you improve your operational efficiency, drive productivity and secure financial predictability. Each contract type includes a set of standardised service modules that can be matched to your business needs. You just need to choose which one is right for you and your day-to-day operations.

#### When the right part matters.

When something needs to be replaced urgently, you need a spare part that meets your exact needs – immediately.

Kalmar offers a rapid delivery service for over 50,000 premium-quality genuine parts to anywhere in the world, with installation support if needed.

You may also want to consider outsourcing all or part of your spare parts management and inventory control. Kalmar Parts Care can make sure that critical spare parts are always on hand so your equipment downtime is kept at a minimum. Each Kalmar Parts Care plan is based on your individual needs, so talk to us today and see how we can improve your parts availability, while reducing your inventory holding costs.





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