



Ready to take on your

TOUGHEST

loads

Kalmar solutions
for industrial handling.



BUILT

to meet your needs

Kalmar offers a wide range of highly efficient and productive Industrial Handling solutions that can be tailored to meet your needs.

With over 10,000 machines in operation around the world, Kalmar equipment are known for their reliability, robustness and their innovative design. Kalmar Reachstackers and Forklifts are available with a wide range of attachments including forks, coils rams, hooks, grippers and magnets; making them suitable for a wide variety of materials like steel and metals, wind tower components, pre-cast concrete sections, and heavy or bulky items that need to be moved in the logistics or mining industries. Heavily loaded trailers with any type of load can be handled by our range of heavy Terminal Tractors.

Built on a proven platform.

Our latest platform has been proven and tested in the field across a wide range of different applications. You will benefit from a highly stable and strong chassis, a common electrical system that helps with quick and easy troubleshooting, a colour HMI screen and a standardised driver interface, making it easier for your operators to drive efficiently and safely.

Built to meet your needs.

With a wide range of solutions on offer, we are able to identify which is the most appropriate and cost-effective solution for your needs. With many different options and attachments to choose from, we will be able to work with you to build a machine that meets your exact requirements.

No job too heavy.

Our range of industrial solutions can lift loads from 9 to 130 tonnes. They are available with a wide range of wheelbases, capacities and attachments, giving you an endless choice of combinations. They are suitable for:



Steel and metals.

With forks, hooks, coils rams, magnets and gripper attachments available, our solutions are suitable for handling slabs, plates, sheets, blooms, billets, bars, pipes, coils, rebars and cast pieces.



Energy.

With lifting capacities up to 130 tonnes, you can safely handle all wind energy components, like tower sections, nacelles and wind turbine blades or other heavy items used in the oil & gas industry, like off-shore pipes and large pipe reels.



Pre-cast concrete.

Concrete building sections or other pre-cast items like foundations, tunnel sections, pillars or girders can be handled with ease. Large marble slabs or wave breakers can also be handled by our reachstacker range with the addition of slings or other specialised attachments.



Heavy and bulk goods.

No matter what your heavy lifting requirements are, we can tailor a solution to meet your specific need from our range of reachstackers, forklifts and terminal tractors.



Logistics.

Logistics and the movement of all types of heavy cargo need to be handled quickly, efficiently and with care. With a vast range of lifting capacities and attachments, we can build you the machine you need.



Mining.

Our solutions can play a vital role in the careful and precise handling of a range of heavy and bulky goods; including special-sized containers, big tyres, heavy mining components and other over-sized cargo.

Safe and efficient.

All of our machines are highly efficient and are available in EU Stage 3A, Stage 4 and EU Stage 5 emission standard ratings. You get a choice of powerful, yet fuel efficient engines, an intelligent operating system and a world class operating environment for your drivers. You can also choose from a range of fuel saving options like Stop/Start Technology and ECO Drive, where you can reduce your fuel consumption by up to 20% or use the DRGE machine with its unique fuel saving HVT transmission. Every one of our machines comes with all the latest safety features and a range of options to further enhance the safety for your drivers.



*Machine details:
The DRG450-65S5 with 20-40 ft container spreader, 55-degree side tilt, hydraulic door opener, 4 lift eyes for slings and a separate C-hook attachment. Built to handle containers, recycled metals and steel coils.*

GUARANTEED

to cut costs

Increasing fuel costs and tougher emissions standards means you need a machine that is lean and green, while still maintaining the highest levels of operational productivity.

The Kalmar Eco Reachstacker provides you with an eco-efficient solution that will have a positive financial impact on your business. It uses up to 40% less fuel than older machines and 25% less than more recent machines, reducing your fuel costs and lowering your emissions significantly while matching the productivity levels of machines with much bigger engines.

Reducing fuel consumption also reduces your emissions, which will enhance your environmental reputation and help you meet current and future emissions standards.

Guaranteed to deliver.

Knowing exactly what your fuel costs are going to be each month gives you a greater level of financial predictability, which is why Kalmar is offering a Fuel Guarantee with each of its Eco Reachstackers. With an agreed and fixed level of fuel consumption, based on a set of agreed metrics, you'll have complete control over your variable fuel costs.

Should the machine exceed the guaranteed levels of fuel consumption, Kalmar will compensate you for the additional fuel cost with a one off payment. The fuel guarantee also provides your drivers with specialist training and access to Kalmar Insight, giving you the ability to track and monitor your reachstacker and take immediate actions to optimise its operational efficiency.

Enhanced driving experience.

Improving the working environment and safety of your drivers is extremely important, as it will improve their productivity and reduce accidents. With our enhanced driving experience your operators will feel more in control, with smoother acceleration, less cabin noise, more responsive braking and steering systems combined with improved joystick control, will together speed up spreader operations.

Based on years of real operational data collected through Kalmar Insight, you can see the clear reduction in fuel costs and emissions between older machines and our new Kalmar Eco Reachstacker.

Kalmar Eco Reachstacker

Typical operating data for 2000 hours of operation.

Litres of fuel	33,270
Euro	41,587
Tonnes of CO ₂	89



Saving you **up to 25%** in fuel costs in comparison to a recent machine.

Saving you **over 40%** in fuel costs in comparison to an older machine.

	5 year old machine	10 year old machine
Litres of fuel	41,068	47,145
Euro	52,334	58,932
Tonnes of CO ₂	110	126

Calculations and assumptions: Fuel consumption data has been collected over a six month period using Kalmar Insight with an Eco Reachstacker, a 5 year old and a 10 year old reachstacker operating normally, with comparable idling time. We have used the following metrics for these calculations: 2000 operating hours per year, fuel at 1.25€ a litre and 2680 grams of CO₂ being produced per litre of fuel used.



ECO
EFFICIENCY
IN ACTION

Machine details:
Eco machine details

Steel and **METALS**

With over 50 years of providing innovative solutions to the steel industry, handling heavy steel and metal products is one of Kalmar's specialities.

Designed to withstand high temperatures of up to 800°C and they can be fitted with a wide range of attachments including hooks, magnets and grippers. Kalmar reachstackers provide greater levels of flexibility than other lifting equipment so you can handle a broader range of loads.



*Machine details:
The DRG540-65A5X with a multi-purpose Tool Carrier, can be fitted with a magnet or hydraulic grippers and handle loads up to 50 tonnes. This machine has a long boom outreach, 300-degree rotation and additional heat protection fitted.*

Slabs, plates and sheets.

Our Tool Carrier can be fitted with magnets, grippers or hooks and can lift up to 65 tonnes. Magnets can work in temperatures up to 400°C and grippers up to 800°C, ideal for working around industrial smelters. Magnets and grippers can also be fitted to a container handler in the 20ft position.



Blooms, billets and bars.

Lifting, stacking and moving steel products, like billets or blooms can be done with precision, speed and safety. Our Tool Carrier can rotate, tilt and side-shift to make handling your load easier and more efficient.



Coils, rebars, pipes & castings.

Handling coils, rebars, pipes and castings require more specialist attachments. Our Tool Carrier can be fitted with a C-Hook or a coil grabber for coils and lift beams, jigs or slings for handling other items like castings, ingots or heavy machine parts.



Operating in extreme temperatures.

voestalpine's Steel Mill in Linz has four Kalmar reachstackers handling steel slabs. The slabs are up to 2.20 m wide, 12 m long and between 100 and 300 mm thick. The hot slabs are handled with hydraulic grippers, in temperatures up to 700°C. At lower temperatures below 400°C, slabs are handled by magnet. Prior to purchasing new Kalmar reachstackers voestalpine was only able to move slabs up to 1.80 m width, now they can handle both wider and heavier slabs up to 50 tonnes.

"Kalmar has proven that it has the competence to adapt the vehicles according to our special needs and particular requirements that go beyond the standard demand."

Markus Schinko, Managing Director, Logistik Service GmbH (LogServ)

The **ENERGY** generating industry



The rapid growth in the global power and alternative fuels industries has resulted in a high demand for machines that are flexible and able to handle unusual loads, like wind energy tower sections that weigh up to 130 tonnes.

Kalmar has developed a complete range of reachstackers specially for the wind, oil, gas and biomass industries, including the Kalmar Super Gloria reachstacker, which can handle weights of up to 260 tonnes when working in tandem with a second machine. Kalmar has a range of attachments designed for the efficient and safe handling of many specialty structures including tower sections, hubs, nacelles, rotor wings, off-shore pipes, power cable drums and pipes on reels.



Machine details:
Two Kalmar Gloria DRG1300-92ZX reachstackers, Kalmar's largest ever built, each capable of lifting up to 130 tonnes, or when working in tandem giant wind tower sections weighing 200-260 tonnes.

Wind.

When fitted with hooks you can lift large structural sections up to 130 tonnes and, when working in tandem with another Kalmar Super Gloria, you can lift sections up to 260 tonnes in weight or similar heavy components, like nacelles or tower sections.



Oil and gas.

With lifting capacities of up to 130 tonnes, Kalmar Reachstackers can be fitted with a variety of attachments and slings enabling you to handle heavy pipes, large power cable drums, pipes on reels and other heavy items with ease.



Biomass and waste-to-energy.

Our reachstackers can handle many different materials and equipment for the alternative energy sector. Our 55-degree tilting spreader can load or unload containers filled with biomass or waste-to-energy materials with great precision, with either sideways or a lengthways tilt.



Lifting over 200 tonnes in tandem.

The demand for wind towers across the world has dramatically increased, which has put increased pressure on the wind industries logistics chains. To help deal with larger and heavier sections needing to be moved, Kalmar delivered two new Super Gloria reachstackers, each able to lift up to 130 tonnes or when working in tandem, large wind tower sections weighting around 200-250 tonnes each. A new world record in heavy lifting for a reachstacker.

"We have started working with our new Super Gloria's and know they will give us the same satisfaction and assurances that our other 6 Kalmar machines have given us". Samuel Iglesias, Logistics Daniel Alonso Group. Manufacturers of Wind Turbine Towers.

Heavy and **BULK** goods



Kalmar reachstackers are well known for handling a large range of materials and have earned a reputation for reliability and versatility. It is this versatility which enables them to be built to your exact specifications to handle your bulky and heavy goods requirements.

Kalmar equipment can be easily re-deployed from one lifting application to another, when your handling needs change. This is particularly relevant if you are handling bulk goods which need to be loaded or unloaded from a container, flat racks or other types of transportation.

An attachment for any task.

Our reachstackers can be fitted with a single or double lift hook, different types of spreaders, extra tilting head or a multi-purpose tool carrier. Both the spreader and the tool carrier can be fitted with a range

of attachments, from lift beams, frames, special hooks, forks, grippers or magnets - depending on your handling task. Each is easily and quickly interchangeable.

Dry goods.

Designed specially to lift containers filled with dry goods like grains, pellets, plastics, or mineral sands, the spreader can be tilted up to 55 degrees with 20' or 40' containers weighing up to 32 tonnes, so its load can be precisely and quickly unloaded from the container. The system includes a hydraulic lock to open the container doors.



Aggregates.

The reachstacker spreader when fitted with a tilting head can empty containers filled with aggregate material easily, or when fitted with a hook can lift bagged or contained aggregate material.



Flat racks.

Large heavy loads like machinery or equipment sections packed on flat racks can be handled in several different ways, with a strong lift beam or frame, with lift hooks, multiple slings or chains.



*Machine details:
This DRG450-60S5 reachstacker was delivered with two attachments. The first a tilting head with a safety clamp that grips the container while it is being tilted and the second, hooks for lifting coils. It can lift loads of up to 45 tonnes.*



Concrete, precast, rocks and LOGISTICS

With a wide range of machines, lifting capacities and attachments, Kalmar will be able to deliver a machine for you that meets your exact needs for handling heavy and difficult loads with ease.



Concrete, precast and rocks.

All types of large-size precast sections for buildings, road work, bridges, tunnels or even foundation stones can be handled with precision, safety and efficiency. Hooks or other special attachments can handle loads up to 130 tonnes.

Mining logistics.

Special cargoes need a precise, efficient way of lifting that doesn't compromise on safety. With a vast range of machines, attachments and options we can build you the machine you need for your special cargo. Ideal for handling extra-large machinery tyres, drilling machines or other important large and heavy equipment used in mining.

Special logistics.

Containers, trailers and all kinds of other special cargo can be handled with our multi-purpose reachstackers. All machines can be equipped with additional attachments for handling of a wide range of goods and over-high folding legs can be fitted to the spreader for working with barges or on the second rail in intermodal operations.

Kalmar Load Measurement System.

The Kalmar Load Measurement System, which is SOLAS compliant, automatically weights and records the load your machine is handling. This information can be printed out in the operator's cabin or sent digitally to an external reporting system like Kalmar Insight. This will allow you to review and monitor individual loads, overloading and load distribution.



KEEP MOVING

with Kalmar Service

To keep your business moving Kalmar Services offers a range of services that can help you keep your equipment moving optimally.



Kalmar Care, making sure your business never stops.

Our job doesn't stop once we deliver your new machine, as Kalmar Care offers a range of service and maintenance contracts. Each of our Service Contracts are designed to meet your exact needs and will help you improve your operational efficiency, productivity and financial predictability. You just need to decide what you require to keep your day-to-day operations moving optimally.



MyKalmar.

Keeping your cargo moving.

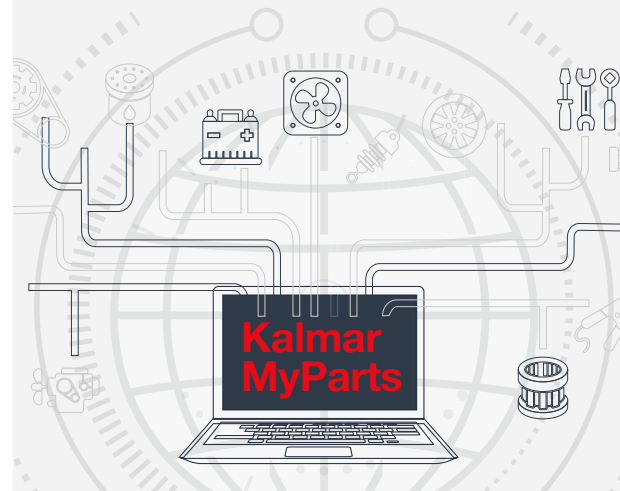
The MyKalmar portal brings together many of Kalmar's digital services into one place. With a single point of access and a user-friendly design you'll benefit from greater visibility and control over your maintenance activities, parts ordering and equipment performance - helping you improve your operational performance, safety and efficiency across your entire fleet.



Kalmar MyParts.

A smarter way to order your parts.

Kalmar MyParts is your one stop shop for all the parts you need which is accessible through MyKalmar. Open 24/7, accessible on any screen and available in different languages, MyParts stocks 100s of thousands of Kalmar Genuine Parts at any given time and we can have them delivered quickly to you, no matter where you are in the world. You can search, order and then track your order all through the same application. MyParts has been designed to make your life easier.

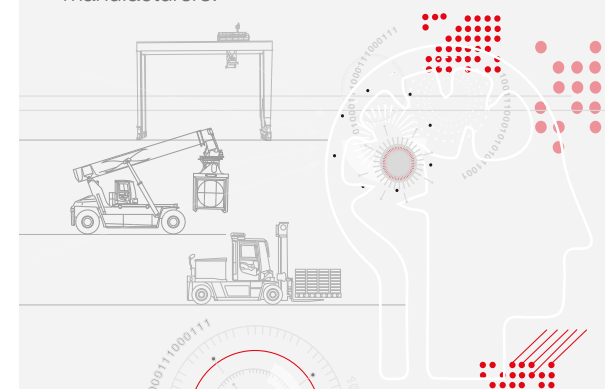


Kalmar Insight.

Optimise your operations with Insight.

Kalmar Insight* is a performance management tool for cargo handling, which gives you an easy to use overview of your fleet operations, by aggregating data from multiple sources, including equipment built by other manufacturers.

Review your entire fleet activities, schedule maintenance activities and order the required parts automatically. All enabling you to take action on real-time information, that will help improve your overall operations immediately. Kalmar Insight comes fitted and ready to be activated in all new Kalmar equipment, it can also be retrofitted into existing Kalmar equipment or those built by other manufacturers.



Kalmar Training.

Enhance your skills.

To get the most out of your new machine our training centre offers a range of courses for both your technicians and operators. Operators can be taught how to drive the machine for optimum performance and minimum waste, and to learn what needs to be checked daily for optimal safety. Technicians can be educated with the knowledge they need to keep your new equipment in top condition in a safe way. Courses are a mix of theory and hands-on experience.



DRIVETRAIN & PERFORMANCE

		Driveline EU3/Tier 3		
ENGINE	Manufacturer, type designation	Cummins QSM-11-C330	Volvo TAD-1151-VE	Volvo TAD-1152-VE
	Fuel - type of engine	Diesel / 4-stroke	Diesel / 4-stroke	Diesel / 4-stroke
	Emission standard	EU3	EU3	EU3
	Number of cylinders – displacement (L)	6-inline - 10.8	6-inline - 10.84	6-inline - 10.84
	Power according to ISO 3046 – at revs (kW @ rpm)	248@1800-2100	265@1450-2000	285@1700
	Torque according to ISO 3046 – at revs (Nm @ rpm)	1674@1100-1400	1785@1260	1938@1260
TRANSM.	Manufacturer, type designation	Dana, TE-30510	Dana, TE-30510	Dana, TE-30510
	Clutch, type	Torque converter	Torque converter	Torque converter
	Gearbox, type	Automatic Powershift	Automatic Powershift	Automatic Powershift
	Number of gears, forward – reverse	5-3	5-3	5-3

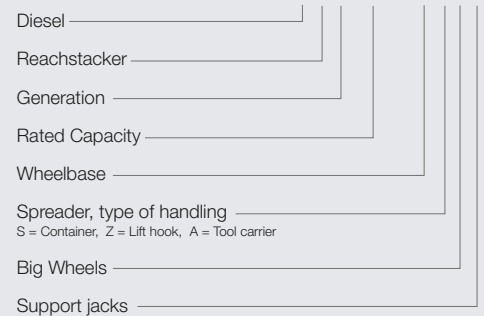
Driveline EU4/Tier 4F				ECO Driveline		
Volvo TAD-1171-VE	Volvo TAD-1172-VE	Volvo TAD-1181-VE	Volvo TAD-1182-VE	Volvo TAD-853-VE	Volvo TAD-873-VE	Volvo TAD-873-VE
Diesel / 4-stroke	Diesel / 4-stroke	Diesel / 4-stroke	Diesel / 4-stroke	Diesel / 4-stroke	Diesel / 4-stroke	Diesel / 4-stroke
EU4	EU4	EU5	EU5	EU3	EU4	EU5
6-inline - 10.84	6-inline - 10.84	6-inline - 10.84	6-inline - 10.84	6-inline - 7.7	6-inline - 7.7	6-inline - 7.7
265@1450-2000	285@1700	265@1450-2000	285@1500-1700	231@1700	231@1700	231@1700
1750@1260	1900@1260	1795@1400	1949@1400	1310@1450	1310@1450	1330@1450
Dana, TE-30510	Dana, TE-30510	Dana, TE-30510	Dana, TE-30510	Dana, HVT R2-851/73	Dana, HVT R2-851/73	Dana, HVT R2-851/73
Torque converter	Torque converter	Torque converter	Torque converter	Hydrostatic	Hydrostatic	Hydrostatic
Automatic Powershift	Automatic Powershift	Automatic Powershift	Automatic Powershift	Hydro-mechanical Variable Transmission	Hydro-mechanical Variable Transmission	Hydro-mechanical Variable Transmission
5-3	5-3	5-3	5-3	3-2	3-2	3-2

ATTACHMENT OPTIONS



MODEL DESIGNATION

DRG600 - 65ZXS



CAPACITIES

TOOL CARRIER	Wheelbase	Tyre size	Lift height	Capacity	Capacity w/support jacks
	(mm)	(in)	(m)	(tons @ LC 2-4-6-8 m)	(tons @ LC 2-4-6-8 m)
DRG 540-65A5X	6500	18.00x33"	15	54-38-25-17	-
DRG 540-65A5XS	6500	18.00x33"	15	54-38-25-17	54-44-33-23
DRG 650-92A5HCX	9250	21.00x35"	16	65-65-47-34-26	-
DRG 650-92A5HCXS	9250	21.00x35"	16	65-65-47-34-26	65-65-60-45-34
DRG 850-82A4XS		21.00x35"		85-85-67-45-33	85-85-75-53-40

A5 = outreach stroke 7,0 m
A5 HC = outreach stroke 8,5 m

LIFTING HOOKS	Wheelbase	Tyre size	Lift height	Capacity	Capacity w/support jacks
	(mm)	(in)	(m)	(tons @ LC 1, 5-2-4-6-8 m)	(tons @ LC 1, 5-2-4-6-8 m)
DRG 570-65Z	6500	18.00x25"	15,2	57-54-31-19-14	-
DRG 600-65ZX	6500	18.00x33"	15,2	60-55-38-25-18	-
DRG 600-65ZXS	6500	18.00x33"	15,2	60-55-38-25-18	60-60-45-34-24
DRG 700-75ZX ⁽¹⁾	7500	18.00x33"	15,2	70-60-45-30-22	-
DRG 700-75ZXS ⁽¹⁾	7500	18.00x33"	15,2	70-60-45-30-22	70-60-50-39-28
DRG 1000-92ZX	9250	24/21.00x35"	15,2	100-90-65-45-34	-
DRG 1300-92ZX ⁽²⁾	9250	24.00x35"	15,2	130-120-85-58-43	-

¹⁾ 70 ton at 10 m lifting height
²⁾ 130 ton at 10 m lifting height

TILTING SPREADER	Wheelbase	Tyre size	Lift height	Capacity
	(mm)	(in)	(m)	(tons @ 1-2-3 row)
DRG450-60S5	6000	18.00x25"	13,7	45-28-13 (lengthways tilt) 45-26-12 (sideways tilt)
DRG450-65S5	6500	18.00x25"	13,7	45-31-15 (lengthways tilt) 45-29-13 (sideways tilt)
DRG450-65S5X	6500	18.00x33"	13,7	45-37-20 (lengthways tilt) 45-35-18 (sideways tilt)

Max. 55 degree tilt, max. 20' container for lengthways tilting and max. 32 tons capacity when tilting.

TOOL CARRIER

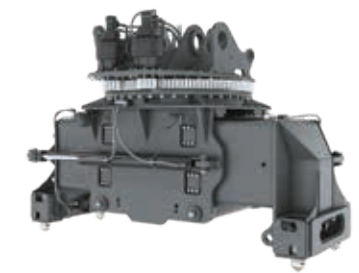
- Lift capacity from 50 up to 85 tonnes
- Load center 0-12m and lifting height up to 16m
- Tool carrier with mechanical pile slope (MPS), sideshift, rotation, 4 twistlocks and 4 lift eyes.

Attachments for tool carrier:

- Steel slab grippers (various models)
- Magnets, single or multiple, for slabs, plates, bars and billets
- Pipe lift units, single or multiple
- Lift beams, lift frames & lift hooks
- Others special combinations.



Tool carrier	
Lift Capacity	54, 65, and 85 metric tonnes
Sideshift	± 450 mm
Mechanical pile slope	± 5 deg, 2,5 degrees on 85 T
Rotation	-105/+195 deg
Rotation motor	Double (2x)
Rotation brakes	Double (2x)
4 Twistlocks	4 x 21.25 T
4 Lift Eyes	4 x 21.25 T
Twistlocks CC	2500 x 760 mm



LIFTING HOOKS

- Lift capacity from 57 to 130 tonnes
- Load center 0-12 m and lifting height up to 16 m
- Dual lifting hook with/without power for driven rotation (360 degrees)
- 4 fixed lift eyes
- Free pivot - left and right
- Free pivot - front and rear.

Attachments for lifting hook:

- Slings, chains or bars
- Lift beams, frames or jibs
- Special units
- Other combinations.



Lifting hook (dual)	
Lift Capacity	57 - 130 tonnes
Rotation	360 deg (free)
4 Lift Eyes	Max load divided by 4
Pivot, lengthwise	Front and rear
Pivot, sideways	Left and right

Standard dual lift hook/optional single lift hook.



CONTACT US

Contact us to discuss how we can tailor our machines to meet your specific material handling needs. Either contact your local Kalmar Sales Support Team or send us your requirements to industrial@kalmarglobal.com

Information provided is correct at time of publication. We reserve the right to update and change this information at any time.



KALMAR

Making your every move count

Published by Kalmar, part of Cargotec. Copyright © Cargotec 2022. All rights reserved. No part of this publication may be copied or reproduced without permission of the copyright owner. The content of this document is provided "as is", without warranties of any kind with regards to its accuracy or reliability and excluding all implied warranties. We reserve the rights to make changes to any of the items described in this document without prior notice. The content of each service and availability of particular services may vary.

www.kalmarglobal.com

Published by Kalmar, part of Cargotec. Copyright Cargotec. All rights reserved.

SB-DRG450-1300-EN-WW / 2022-11-04