

ECCO
EFFICIENCY
IN ACTION

The Kalmar

ELECTRIC REACHSTACKER



ERG420-450

 **KALMAR**

The time is now to go

ELECTRIC

Kalmar's electrically powered reachstacker can help improve the eco-efficiency of your operations while maintaining the highest levels of productivity and safety. With a range of modular battery options and charging solutions, we can work with you to design a solution that will deliver for your business.

Eco-efficiency built in.

Being electrically powered, your reachstacker will produce zero carbon emission at source, making them cleaner and safer to operate. You can cut your carbon emissions even further by using green energy sources where available or start to generate and use your own power. Getting an electrically powered reachstacker is only the start of your eco-efficient journey. One that we will be with you every step of the way.



Productive by nature.

With an electric powered driveline your drivers will notice a big difference with faster and smoother acceleration and more responsive handling while still being able to lift up to 45 tonnes efficiently and safely. Less time will be spent servicing and maintaining your electrically powered reachstacker as it has less moving and mechanical parts, plus you will be able to keep it running optimally within a broader range of temperatures with Kalmar's Thermal Management System fitted as standard.

Safety in focus.

Kalmar's range of electrically powered reachstackers offer highly responsive handling and superior visibility from the cabin, helping to keep your driver safe and in control at all times. Your drivers will also benefit from reduced cabin noise and vibrations as our electrically powered reachstacker's driveline is extremely quiet and smooth. There are also a large range of safety options available that can further enhance the safety of your equipment and the drivers operating them.



For complete peace of mind.

All Kalmar Electric Reachstackers come with a 2 year/4000 hour warranty. Charging solutions are covered for 2 years and batteries for up to 5 years. Additional warranties up to 10 years for the reachstacker and 5 years for the charger are available for complete peace of mind.



Our electric PORTFOLIO

Kalmar's electrically powered reachstacker is part of our complete range of eco-efficient solutions, which include terminal tractors, forklifts and empty container handlers.

Local Grid

Power Cabinets

Power cabinets manage the required electricity flow from the grid to your charging points. Power cabinets are modular and the number required is dependent on the number of charging points required.

Battery and Charging Monitoring

Real-time status on battery capacity and health along with charging usage and timing allows for optimised operational planning and usage.

Kalmar Insight

Kalmar Insight gives you the ability to monitor your fleet's operational status in real time no matter what type of your equipment you operate.

Charging Posts

We offer several different charging solutions. They can come with one or two charging guns and we have a small mobile unit that can be used to quickly charge your equipment if it isn't near a charging point and has run out of charge.

Sub Station Transformer

Site Power Grid

Additional Energy Storage

You can use additional energy storage units to capture excess power that you may have produced to use at a later time when required instead of buying from the grid.

Reachstackers

Kalmar offers a choice of electrically powered reachstackers with a wide range of lifting applications, battery solutions and 42 to 45 tonne lifting capacities.

Forklifts

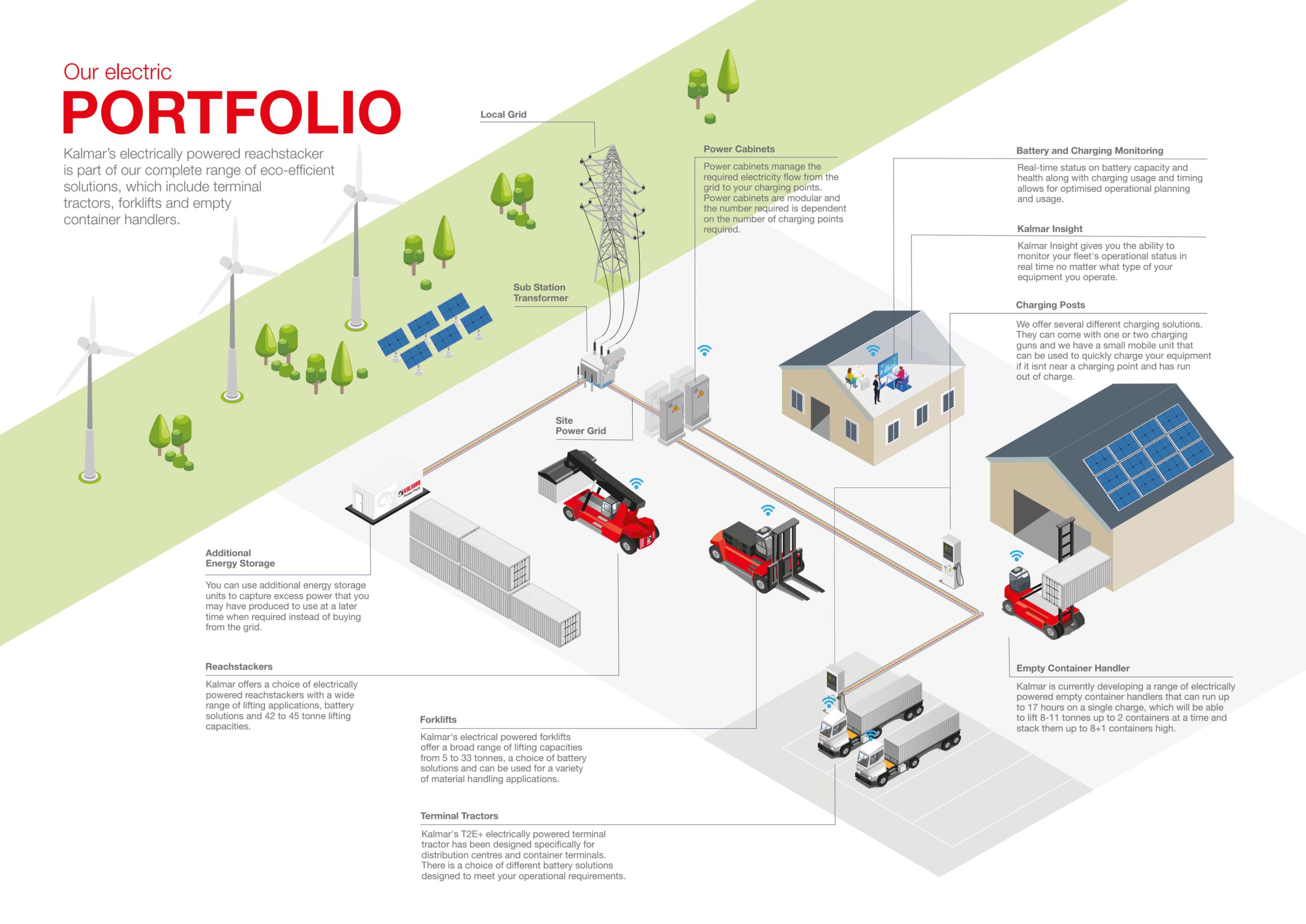
Kalmar's electrical powered forklifts offer a broad range of lifting capacities from 5 to 33 tonnes, a choice of battery solutions and can be used for a variety of material handling applications.

Terminal Tractors

Kalmar's T2E+ electrically powered terminal tractor has been designed specifically for distribution centres and container terminals. There is a choice of different battery solutions designed to meet your operational requirements.

Empty Container Handler

Kalmar is currently developing a range of electrically powered empty container handlers that can run up to 17 hours on a single charge, which will be able to lift 8-11 tonnes up to 2 containers at a time and stack them up to 8+1 containers high.



The POWER is in your hands

Eco-efficient by nature.

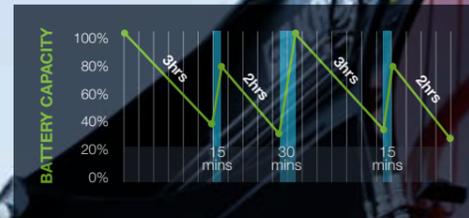
By combining a highly efficient electrically powered motor, with direct drive hydraulics you get a driveline combination that will deliver on power and productivity while producing zero carbon emissions at source.

The complete system has been designed to minimise energy losses. With improved battery lifetime, performance and monitoring, energy losses have been minimised allowing for long charging intervals. Regenerative power from the braking system returns power to the batteries, further enhancing the overall efficiency of the system.

There are four different Li-Ion batteries to choose from which can be quickly opportunity charged during operational hours or fully charged overnight.

OPERATIONAL HOURS		245 kWh	326 kWh	407 kWh	587 kWh
DRIVE CYCLE	Light	4	5.5	7	10
	Medium	3.5	5	6	8.5
	Heavy	3	4	5	7.5

Four battery sizes to choose from



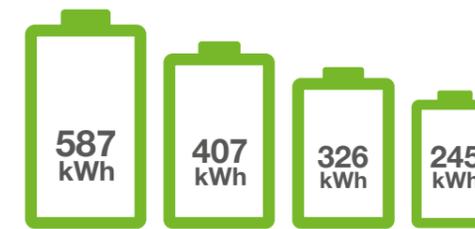
Opportunity charge to match work cycles.

Modular by design.

Batteries and chargers are a big part of your overall investment making it critical that you get a solution that is matched to your operational requirements, which is why Kalmar has taken a modular approach to our battery and charging solutions.

There are four different charging solutions with charging capacities from 175-350 kW and four different Li-ion batteries to choose from. Our battery solutions all come with a 5 year warranty and have an expected 10-12 year life*.

Kalmar can help you work out which battery option and charging solution is right for your business based on your current work cycles.



Managing your power.

Kalmar's Battery Monitoring System continually monitors the voltage, temperature, coolant and current flow of your battery solution to ensure that it operates optimally over its lifetime. This system also controls the charging of the batteries by redirecting recovered energy back into the battery packs making sure you are using the power available as efficiently as possible. Data from the Battery Monitoring System is displayed in Kalmar Insight allowing you to secure optimal battery use to ensure warranty conditions are met and the longest possible lifetime of the battery can be obtained.

Productive in extreme weather conditions.

Our portfolio of electrically powered reachstackers all come fitted with a Thermal Management System, which allows your equipment to run optimally even in extreme weather temperatures. The system keeps your core battery temperature between 25-30°C for optimal performance even when the temperature outside gets down to -30°C or up to 40°C.

By linking the Thermal Management System to the Climate Control System energy used to heat or cool the operator's cabin will be reduced by 5%. Not only keeping your drivers comfortable, but reducing the overall energy required to run the AC or heating.



Extra safe.

With any electrically powered high voltage system you need to be extra safe which is why we have encased and shielded all high voltage lines. Should any connection be interrupted the whole system will automatically shut down keeping your team safe. Knowing how to work with high voltage power sources is extremely important which is why Kalmar has specifically designed a High Voltage training course to enhance the skills of your workers and keep them extra safe.



POWERTRAIN

DRIVETRAIN	Drive axle, manufacturer - type	Kessler D102 - Differential and hub reduction				
	Drive motor, manufacturer - type designation	BoschRexroth - EMS1H 13E60				
	Drive motor power, rated continuous - max	kW	182 - 405			
	Transmission, manufacturer - type designation	BoschRexroth / eGFZ9275 2-speed				
	Load handling motor, manufacturer - type designation	BoschRexroth / EMS1H 20B20				
	Load handling motor capacity, rated continuous - max	kW	110 - 230			
	Auxiliary motor, manufacturer - type designation	BoschRexroth / EMS1H 13B15				
	Auxiliary motor capacity, rated continuous - max	kW	23 - 50			
Energy consumption	kWh/h	40 - 68				
BATTERY	Battery type	Li-Ion				
	Battery nominal capacity	kWh	245	326	407	587
	System nominal voltage	V	565 - 754			
	Charging inlet capacity, max	kW	350			
	Charging inlet standard	CCS1, CCS2				

* First life, meaning until 80% capacity is left in the battery.

More OPTIONS



Kalmar has a range of options that make operating your equipment even safer:



Fire Suppression System. To protect your operator and machine from fire you can fit a Fire Suppression System* to your machine. The system utilises multiple spray nozzles that release a high pressure water mist where the fire has been detected from a re-chargeable water tank. This can be activated manually or automatically through an in-cabin temperature sensor.



Alcolock. To ensure that your driver is at their best when operating your equipment you can install an Alcolock system. This system makes sure that the driver meets alcohol blood level standards before being able to start the machine, much like a breathalyser.



Reverse Beeper System. When your staff are working side by side with moving vehicles there is always a safety risk. Installing a reverse beeper system provides a clear acoustic alert when the machine is reversing so personnel can make sure that they are out of harm's way at all times.



Additional lighting. Extra lighting, particularly if you operate your machine at night, as you can bring greater operational visibility and safety for personnel working on the site. You can choose additional LED working lamps on specific positions.



Kalmar has a range of solutions that will help make your equipment more eco-efficient and sustainable:



Tyre Pressure Monitoring System. Helps to reduce wear and tear on tyres which results in reduced fuel consumption. Bluetooth sensors keep the driver advised of the condition of the tyres continually. Active care of your tyres can result in a 10-40% increase in tyre life.



Reverse Warning System. Knowing what's going on behind you is critical when other personnel are present. Four rear sensors and a reversing camera relay real-time information to an in-cabin display, alerting the driver to any dangers, increasing personnel and driver safety. You can also add additional cameras on the spreaders or on the front of the machine.



Container Weighing and Load Centricity. A SOLAS compliant solution that automatically weighs and records the container load your machine is handling.



Container ID Recognition. Automatic capture and registration of the container ID allows your drivers to focus on safe and productive container handling.



Container Locator. Ensures you always know where each individual container is in your yard, at any given time.**



Reduced Steering Radius System. By reducing the overall steering radius of your reachstacker you will reduce wear and tear, extending the life of your tyres.



Drive Speed Limitation System. Automatically restricts the speed at which your equipment can be operated, helping to reduce wear and tear as well as fuel consumption.

Kalmar Tracker

DESIGNED

for the driver

Ergonomically designed.

Kalmar Electric Reachstackers come fitted with our ergonomically designed EGO cabin. With slim line b-pillars, adjustable seating, steering wheel and control panel, your drivers will benefit from a superior operating environment and visibility.

The Kalmar Electric Reachstacker, with its electrically powered driveline, is quieter inside and outside the cabin, vibrates less than traditional reachstackers and produces no carbon emissions, further enhancing driver comfort.



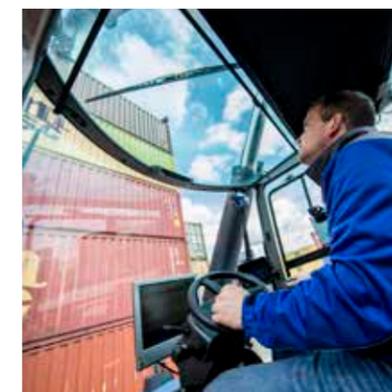
Easy to operate.

Our electrically powered reachstacker comes with a wide choice of joysticks or lifting levers, an electronically adjustable work console and side tilting steering wheel. All designed to make operating your reachstacker easier and more efficient.



More comfortable.

With a choice of comfortable driver seats, a fault safe pedal system and powerful Electronic Climate Control system with smarter controls your operator will benefit from improved ventilation heating and cooling, plus a cabin with superior comfort and lowest noise level inside and outside.



Extra smart.

Our intuitive user interface combines visibility, sound and touch to create a perfectly balanced operating environment with an intelligent colour display at its heart. Advanced diagnostics, battery status overview and smart settings allow improved operational control and optimal opportunity charging planning.



* Cannot suppress a battery fire

** This option will be available soon.

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.

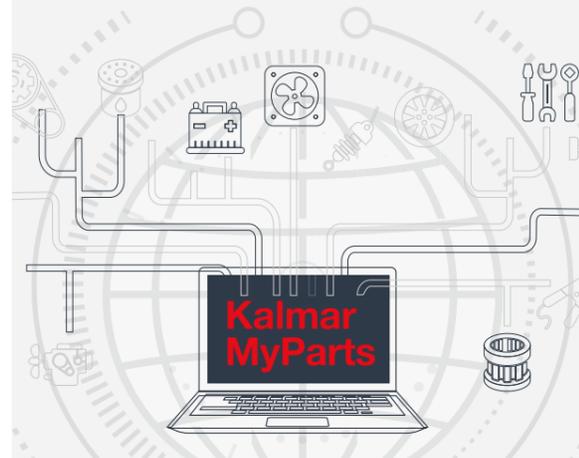
The MyKalmar portal brings together many of Kalmar's digital services into one place. With a single point of access and a user-friendly design you'll benefit from greater visibility and control over your maintenance activities, parts ordering and equipment performance - helping you improve your operational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

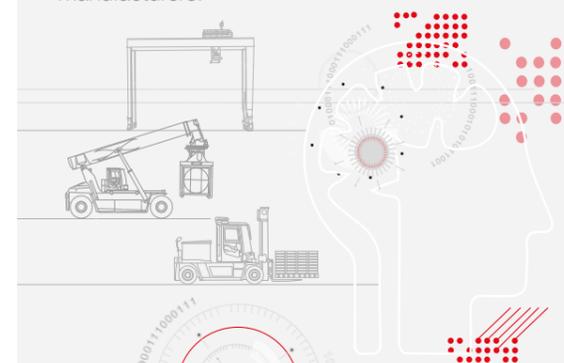


Kalmar Insight.

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.



*Installation costs and/or an annual subscription fee may apply.

STANDARD

Kalmar ERG420S-450S (S = Container - Top Lift)
Kalmar ERG450C-450C (C = Intermodal - Combi Lift)

Norms, Standards and Regulations

- Machinery Directive 2006/42/EC
- Safety Variable Reach Trucks EN 1459+A3
- Safety Low & High Lift Trucks ANSI/ITSDF B56.1
- Low Voltage Directive 2014/35/EU
- CE-marking for trucks within EU/EEA
- ANSI/ITSDF-marking for North America trucks
- Electrical/electronic requirements EN1175
- EMC Directive 2014/30/EU
- Powered industrial Trucks AS2359
- Supply of Machinery (Safety) Regulations 2008
- UKCA-marking for trucks within United Kingdom
- AS-marking for Australia trucks

Chassis

- Strong and durable heavy-duty chassis
- Safe access steps, platform & hand-rails (LHS)
- Long bottom access step (on both sides)
- Lifting eyes and anchor points (front & rear)
- Good rear end visibility of the truck
- Towing pin (rear)

Body

- Steps with anti-slip protection
- Rear view mirrors (2x) - rear on front mudguards
- Strong and protective mudguards (front & rear)

Steer Axle (Rear)

- Kalmar steer axle mounted dual pivot bearings
- Orbitrol power steering with double acting cylinder
- Wheel nut protection on steer tyres

Drive Axle (Front)

- Kessler planetary axle with differential drive
- Wide axle for high side stability (4150 mm)
- Oil-cooled Wet Disc Brakes (WDB)
- High pressure filter (10 mμ) for the brakes

Wheels (Tyres & Rims)

- Strong wheels (tyres and rims) in 18.00x25"

Powertrain

- BoschRexroth traction motor 182 kW cont./405 kW max.
- Load handling motor 110 kW cont./230 kW max.
- Auxiliary motor 23 kW cont./50 kW max.
- BoschRexroth 2-speed transmission
- System voltage 666 V (nominal)
- Regenerative braking

Load-Sensing Hydraulics

- Load-sensing variable piston pumps
- Pumps for boom, spreader, brakes & steering
- Vane pumps for brake & oil cooling (2x)
- Return filters for the work hydraulics (2x/10 mμ)
- Hydraulic long-life fine filter with by-pass (5 mμ)
- Servo filter for the work hydraulics (10 mμ)
- Pressure filter for the brakes (10 mμ)
- Regeneration high-speed lifting & extension
- Boom end-damping (in-out/up-down/20-40')
- Hydraulic tank (700 lit), cooling, breather filter & ORFS-couplings

Lifting Boom

- Strong, durable box-type boom with guide pads
- Boom with 2 lift cylinders & 1 extension cylinder

Attachment

- Top Lift (S), 45 tons, 20'-40', MPS, TWL, 4 lift hooks, sideshift and rotation
- Combi Lift (C), 45 tons, 20'-30'-40', HPS, TWL, 4 lift legs, 4 hooks, end tilt+lock, sideshift & rotation
- S-C = 4 floating twistlocks, LED indication lamps and 2 LED work lamps
- S-C = Safety locking, alignment pins (4x) and sensors (4x)
- S-C = Rotation +195/-105 deg (2 motors and 2 brakes)
- S-C = Lift hooks for slings on end beams (4x)
- S = Mechanical Pile Slope MPS ±5 deg
- C = Hydraulic Pile Slope HPS ±5 deg
- Large sideshift (S-C = ±800 mm)

Electrical System 24V

- Battery box 2x12V (24V) & main power switch
- Electric service box on chassis (LHS)
- 2 LED head lights on front fenders (one beam)
- 2 LED working lights on boom
- 2 LED working lights on front edge cabin
- 2 LED rear lights on fenders (when reversing)
- 2 LED working lights on attachment (S + C)
- 2 LED position lights on each side
- 2 LED tail lights / brake LED-lights
- 4 LED blinker lights (front-rear/left-right)
- 2 LED flashing brake lights (when reversing)
- 1 LED rotating warning beacon
- 1 acoustic signal / reverse alarm (in reverse)

Cabin (EGO)

Structure

- Spacious, modern cabin with good ergonomics
- Large windows, good visibility, in all directions
- Manual moveable cabin (stroke 2375 mm)
- Step for roof access
- Instep handle (left side)
- Sliding window on both sides
- Doors with air damper and key lock (L + R)
- Tinted laminated windows

Comfort

- Comfort seat Kalmar, mechanical spring, high back
- Adjustable armrest (RHS) & 2-point safety belt
- Inside rear view mirror (right side)
- Interior lights with fade away function
- Fully adjustable steering wheel incl tilt function
- Fully adjustable colour display
- Electric adjustable operational console with joystick, operational buttons & armrest (RHS)
- Power steering wheel with steer knob
- Electric horn
- LED background light for buttons & switches
- Cabin heater via TMS

Controls

- Joystick for boom, spreader & forward / reverse
- Auto rev-up accelerator at lifting/extension
- Electric accelerator for driving
- Double brake pedals (L + R)
- Button for electronic hand brake (on/off)
- Safety override for hydraulic functions (by code)
- Multi-function lever (LHS) horn, gear/direction switch, high/low beam
- Warning - hand brake (on/off) leaving seat
- Hour meter

Climate

- ECC, electronic climate control, powerful cooler, heater and ventilator
- Air-condition incl. fresh air and recirculation filter
- Wipers/washers; dual wipers on front window, single wipers on rear and roof windows
- Interval wiper functions on front, rear and roof

Information Systems

- Colour display & automatic fault analysis
- Menu control with toggle wheel & push buttons
- Electronic safety, overload, scale & synchronized lift functions
- Longitudinal Load Moment Indicator (Pop-Up Menu)
- Longitudinal Load Moment Control (Pop-Up Menu)

ECO Drive Modes

- Power mode
- Normal mode
- Eco mode

Operator menu:

- System voltage
- Travelling speed (km/h or mph)
- Hydraulic oil temperature
- Clock and date
- Load info (tons) & Load Centre info (mm)
- Boom extension & Boom angle
- Operating time (hours)
- Service time indicator (hours)
- Boom angle and Boom extension
- Electronic weight scale functions
- Status of Heating, Ventilation and AC system
- Service indicator
- Container counter with reset function
- Trip computer / statistics

Various warning lights & signals:

- Charging battery
- Low brake pressure
- Failure indicator
- Safety system disconnected
- Low coolant level battery
- Low coolant level electrical components
- High coolant temp battery
- High coolant temp electric components
- Low power battery volt level
- Low/high battery cell temp
- Low/high battery cell volt level/unbalanced power battery
- Hydraulic oil temperature

Indicator lamps:

- Direction indication
- Parking brake

Fleet Management

- Equipped with telemetric hardware for Kalmar Insight

Colour

- Cabin: Iron-Grey RAL 7011
- Chassis, tanks & mudguards: Red RAL 3000
- Boom, attachment & axles: Black RAL 7021
- Rims: Iron-Grey RAL 7011

Documentation and Decals

- Load chart diagram inside cabin
- Machine data sign on chassis incl. load chart
- Warning, tyre pressure & oil pressure stickers
- Information & joystick stickers
- Fuse diagram
- Instruction manual
- Maintenance manual
- Spare parts catalogue

Warranty

- Base machine (excl. battery) 24 months / 4000 hours
- Battery warranty 5 years or defined kWh

OPTIONS

Kalmar ERG420S-450S (S = Container - Top Lift)
Kalmar ERG450C-450C (C = Intermodal - Combi Lift)

Chassis

- ERG ranges in Toplift (S), Intermodal (C)
- Wheelbases; 6,00 - 6,50 m

Body

- Anti slip protection on fenders and tanks
- Mud flaps (front or/and rear)
- External rear view mirrors (2x)
- Storage box

Steer Axle (Rear)

- Steer cylinder spacer (less tyre wear)

Wheels (Tyres & Rims)

- Spare wheels, tyres and rims for 18.00x25"

Powertrain

- 245 kWh battery 17,5 Ah (nominal capacity)
- 326 kWh battery 17,5 Ah (nominal capacity)
- 407 kWh battery 17,5 Ah (nominal capacity)
- 587 kWh battery 21 Ah (nominal capacity)
- Various programmable speed limitations

Load-Sensing Hydraulics

- High pressure filter

Lifting boom

- Duplex 2-stage S5 (5/5, H4 = 15,1-15,2 m)
- Duplex 2-stage S6 (6/5, H4 = 16,1-16,2 m)
- Duplex 2-stage S6H (6/6, H4 = 17,7-17,8 m)
- Duplex 2-stage C5 (5/5, H4 = 14,9-15,0 m)
- Lifting boom outreach cylinder stroke, S5=7,00, S6=7,70 and S6H=8,50 m.

Attachment

- Tilt function F/R ±5 deg, tilt lock, speed 5 km/h
- Hydraulic Pile Slope, HPS ±5 deg (side tilt), incl tilt lock and speed 5 km/h
- Rotation stop at ±25 deg (incl override switch)
- Automatic extension 20'-40' incl 30' stop
- 2 extra lift eyes, centre of spreader (2 x 22.5 T)
- 4 extra lift eyes, middle of spreader (4 x 11.2 T)
- Soft landing with ultrasonic sensor (less noise)
- Twistlock rubber damper (100 mm longer)
- Extended twistlocks 300 mm (250 mm longer)
- Cylinder extension 20'-40' on standard/Tiit/HPS
- WTP Top Lift (Wide Twl Pos), HPS ±5 deg, 30'-35' stop, TWL = 2260-2448 mm
- Coil ram, 35 tons, coil ID/OD = 500/3000 mm, slave attachment for 20ft
- Lift hook (1x) + lift eyes (4x), max 50 tons, slave attachment for 20ft
- Various industrial lift units, mounted in slave attachments for 20ft

Electrical System 24V

- Radio with CD / MP3 / Bluetooth / DAB
- Extra sockets 2x24V+2x12V (in door columns)
- Extra sockets 2x24V+2x5V USB (door columns)
- Electric air pressure horn
- Height limitation system for lifting boom
- Load centre limitation for lifting boom
- Speed limitation (default 19 km/h, but editable)
- Speed warning at 15km/h
- Speed limitation outside transport mode
- Power battery volt level
- Coolant temperature power battery
- Coolant temperature electric components/trm
- Adjustable acceleration/deacceleration
- Extra working light, LED 2x, on front mudguards
- Extra working light, LED 4x, on front mudguards
- Extra working light, LED 2x, on spreader
- Extra working light, LED 2x, middle of boom
- Extra working light, LED 4x, front of boom

- Extra reverse light, LED 2x, on rear light bracket
- Extra rotating beacon, LED, in boom nose front
- Extra rotating beacon, LED, right side on CW
- Extra rotating beacon, LED, left side on CW
- Flash light replacing STD beacon on boom
- Colour display TFT-7" (17 cm), inside cabin choose type of camera(s) below:
 - Reverse camera, 1x, rear on counter weight
 - Front chassis camera, 1x, above drive axle
 - Front of outer boom, 1x, facing forward
 - Below inner boom, 1x, facing forward
 - Twistlock cameras, 2x, in spreader end beams
 - Combi legs camera, 2x, facing down on trailer
- Reverse warning system, TFT-7" display, reverse camera, 4 rear sensors
- Forward warning system, TFT-7" display, reverse camera, 4 rear sensors
- Electric heated mirrors, front fender/standard pos
- Electric heated and adjustable mirrors, on front fenders (standard position)
- Remote control unit for spreader and boom
- Tyre pressure monitoring system (Bluetooth)
- Alcolock Draeger in cabin

Cabin

Structure

- Hydraulic sliding cabin (stroke 2375 mm), anti-collision function, avoid load hitting cabin
- Hydraulic elevating cab (stroke 2300 mm) position forward on right side
- Speed limitation depending on cabin position
- Extended rear cabin window 100mm

Comfort

- Seat with air-cushion, heating & 3-p belt
- Seat cover in vinyl
- Head rest for the seat
- Armrest with adjustment (LHS)
- Horizontal dampening/suspension of seat
- Grammer Actimo XL, air-cushion, heat, 3-p belt
- Isringhausen 6830KA/870, air-cush, heat, 3-p belt
- Extra trainer seat incl 2-p safety belt (LHS)
- Bracket for terminal and monitor (RHS)
- Write pad, A4 paper box & reading lamp (RHS)
- Extra rear-view mirror inside cabin

Controls

- Low Voltage Directive 2014/35/EU
- Lever steering incl switch for forward/reverse
- Mini-wheel steering incl F-N-R switch
- Cobra joystick (F-generation)
- EGO joystick (G-generation)
- Override key switch

Climate

- Sun visor front-roof-rear windows (of black net)
- Sun visor roof window (of reflecting film)
- Microfilter in additional to standard filter
- AC/ECC switched off when door is open

Additional Equipment

- Enhanced Safety Package including:
 - Speed limitation outside transport mode
 - Reverse warning system including sensors, camera and displays in cab
 - Tyre pressure monitoring system
 - Adjustable speed limiter (default 15 km/h)
 - Seat belt interlock (machine will not go in gear if seat belt is off)
- Semi-automatic fire suppression system
- Fire extinguisher 6 kg, powder
- Tool kit
- Central greasing (base truck + steering)
- Central greasing (entire spreader)

Information Systems

- VDI - Vehicle Data Interface

Fleet Management

- Kalmar Insight licence (only certified countries)
- Kalmar Insight Driver Monitor (RFID reader + 10 unique driver tags)
- Kalmar Insight extra driver tags (10 tags)

Kalmar Load Measurement System

- Semi-automatic weight checking and recording system including time, date and load
- SOLAS compliant (VGM - Verified Gross Mass)

Colour

- Other RAL colour than standard, chassis
- Special and multiple colours, chassis
- Other colour than standard, striping foil
- Reinforced anti-corrosion protection

Documentation and Decals

- Extra set of documentation
- Workshop manuals
- Load chart lbs/inch in cab & sign "no riders"
- Documentation on memory stick

Training

- Various training packages, for drivers, service, maintenance, software etc
- Contact Kalmar Training Centre for more information and planning

Warranty

- Extended warranty packages available - please contact Kalmar for more information

SPECIFICATIONS

			ERG420-60S5	ERG450-60S5
MAIN DATA	Type of handling		Container Handling	
	Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3 - Q4	(tons)	42 - 25 - 12 45- 27 - 13
	Lift capacity, row 1-2-3-4 (incl jacks)	Q1 - Q2 - Q3 - Q4	(tons)	- -
	Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7	(mm)	1965 - 3815 - 6315 1965 - 3815 - 6315
	Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"			5/5 - 5/4 - 4/3 5/5 - 5/4 - 4/3
	Lost load centre, to front face of tyres	X	(mm)	835 835
Wheelbase	L3	(mm)	6000 6000	

			ERG420-60S5	ERG450-60S5
WHEELS	Tyres, dimension, PLY rating, star rating (1)		18 x 25", PR40, E4	18 x 25", PR40, E4
	Tyre pressure (front - rear)		(MPa)	1,0 - 1,0 1,0 - 1,0
	Track width (front - rear)	S1 - S2	(mm)	3030 - 2600 3030 - 2600

DIMENSIONS	Boom angle, min - max		(deg)	0 - 60 0 - 60
	Boom height, min - max	H3 - H5	(mm)	4600 - 18200 4600 - 18200
	Chassis height - top of boom fixation, max	H2	(mm)	3925 3925
	Lift height, min-max in twistlocks, row ¹	H4	(mm)	15100 15100
	Boom reach stroke		(mm)	7000 7000
	Truck height - seat height	H6 - H8	(mm)	4600 - 2575 4600 - 2575
	Overall truck length, with boom	L	(mm)	11200 11200
	Truck width over drive axle	B	(mm)	4150 4150
	Spreader sideshift	V1	(mm)	+/-800 (1600) +/-800 (1600)
	Spreader rotation		(deg)	+195/-105 +195/-105
	Ground clearance		(mm)	250 250
	Aisle width with 20'-40' container	A1 - A2	(mm)	11200 - 13600 11200 - 13600
Turning radius, outer with 20'-40' container	R1 - R3	(mm)	8100 - 9400 8100 - 9400	

POWERTRAIN	Max travel speed, fw unloaded - 70% rated load / rw unloaded - 70% rated load, max		(km/h)	25 - 20 / 25 - 20 25 - 20 / 25 - 20
	Lifting speed, unloaded - 70% of rated load		(m/s)	0,42 - 0,25 0,42 - 0,25
	Lowering speed, unloaded - rated load		(m/s)	0,36 - 0,36 0,36 - 0,36
	Drawbar pull / towing capacity (peak - continuous)		(kN)	250 - 100 250 - 100

OTHER	Tank volumes of working oil & brake oil		(l)	740 (600 + 140) 740 (600 + 140)
	Working pressure boom, max		(MPa)	23 23
	Noise level LpAZ (EN12053), inside cabin ²		(dB(A))	Not yet available
	Noise level LWAZ (EN12053), outside cabin ²		(dB(A))	Not yet available

1. 4 + 2 pneumatic / diagonal tyres
2. Depending on Drive Mode setting

ERG450-60S5M	ERG450-65S5	ERG450-65S6	ERG450-65S6H	ERG450-60C5	ERG450-65C5
Container Handling					
45 - 30 - 15	45 - 32 - 16	45 - 32 - 16 - 9	45 - 33 - 18 - 10	45 - 25 - 10	45 - 28 - 13
-	-	-	-	-	-
1965 - 3815 - 6315	1965 - 3815 - 6315	2265 - 3815 - 6315 - 8815	2965 - 3815 - 6315 - 8815	1965 - 3815 - 6315	1965 - 3815 - 6315
5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	6/5 - 5/5 - 4/4 - 2/2	6/6 - 6/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3
835	835	835	835	835	835
6000	6500	6500	6500	6000	6500

18 x 25", PR40, E4					
1,0 - 1,0	1,0 - 1,0	1,0 - 1,0	1,0 - 1,0	1,0 - 1,0	1,0 - 1,0
3030 - 2600	3030 - 2600	3030 - 2600	3030 - 2600	3030 - 2600	3030 - 2600

0 - 60	0 - 60	0 - 62	0 - 63	0 - 60	0 - 60
4600 - 18200	4600 - 18200	4500 - 19250	4600 - 20800	4600 - 18200	4600 - 18200
3925	3925	3925	3925	3925	3925
15100	15100	16200	17700	14900	14900
7000	7000	7700	8500	7000	7000
4600 - 2575	4600 - 2575	4500 - 2575	4600 - 2575	4600 - 2575	4600 - 2575
11200	11700	12000	12700	11200	11700
4150	4150	4150	4150	4150	4150
+/-800 (1600)	+/-800 (1600)	+/-800 (1600)	+/-800 (1600)	+/-800 (1600)	+/-800 (1600)
+195/-105	+195/-105	+195/-105	+195/-105	+195/-105	+195/-105
250	250	250	250	250	250
11200 - 13600	11600 - 13600	11900 - 13900	12200 - 14200	11200 - 13600	11600 - 13600
8100 - 9400	8500 - 9400	8500 - 9450	8500 - 9450	8100 - 9400	8500 - 9400

25 - 20 / 25 - 20	25 - 20 / 25 - 20	25 - 20 / 25 - 20	25 - 20 / 25 - 20	25 - 20 / 25 - 20	25 - 20 / 25 - 20
0,42 - 0,25	0,42 - 0,25	0,42 - 0,25	0,42 - 0,25	0,42 - 0,25	0,42 - 0,25
0,36 - 0,36	0,36 - 0,36	0,36 - 0,36	0,36 - 0,36	0,36 - 0,36	0,36 - 0,36
250 - 100	250 - 100	250 - 100	250 - 100	250 - 100	250 - 100

740 (600 + 140)	740 (600 + 140)	740 (600 + 140)	740 (600 + 140)	740 (600 + 140)	740 (600 + 140)
23	23	23	23	23	23
		Not yet available	Not yet available	Not yet available	Not yet available
		Not yet available	Not yet available	Not yet available	Not yet available





KALMAR

Making your every move count

Published by Kalmar, part of Cargotec. Copyright © Cargotec 2021. 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