

The EGO cabin

Ready to challenge any operation.



Ready to challenge any operation.

Revenue without the costs, in black and white.
In the end it's all about the bottom line.
That's why we've once again decided to give our
customers access to the industry's most modern
and optimised cabin.

We call it EGO.

The requirements for safety, productivity, cost-effectiveness and environmental considerations just get greater every day. And even if the business environment changes from customer to customer, Kalmar machines are in most cases an important part of a highly efficient logistics system.

And it has been demonstrated that the operator environment and the cabin, the machine's control centre and cockpit, can have significant influence on income and costs in particular.

That's also why we say we deliver potential productivity and profitability.

"How does this affect my calculations?" you're wondering.

Of course, it differs from company to company, but we know the emphasis isn't on investment costs, but rather handling efficiency, capacity utilisation, operating costs, cargo damage costs and operator costs.

These factors and potential savings are directly associated with the way the operator environment is designed and optimised.

This is precisely why we at Kalmar decided to invest in developing a completely new operator environment and cabin for our Kalmar machines.

Focusing on our entire model range.

Cost savings

Tyres are worn out quickly for no good reason, and there's a lot of unnecessary fuel consumption. But here the operators themselves could make a difference.

Productivity

What if we could improve operator productivity by ten percent? Then there would be plenty of money left on the bottom line.

Safety

With such great visibility, there will definitely be a much lower risk of accidents. Perhaps also of damage to our cargo consignments.

Ergonomics

This generous operator environment is on a whole new level. If we can maximise operator concentration during the entire shift, both safety and efficiency will increase.

Risk minimisation

Much unnecessary downtime is due to the fact that our operators have a poor idea of machine status. But here we have the opportunity to improve this.

Optimised

It's great that we can easily tailor the operator environment to benefit both our handling and our operators. And here there's a good selection of modules and options.





Ready to challenge any operator.

Number of units and tonnes, in black and white.
In the end it's all about the daily report.
That's why we've once again decided to give the
world's operators access to the industry's most
modern and optimised cabin.

We call it EGO.

In 99 cases out of 100, the operator is a key element in a highly efficient logistics system, after which the machine's cockpit and control centre have an immense effect on the number of units or tonnes handled during a shift.

That's also why we say we deliver potential handling efficiency and cost effectiveness.

"How does this affect my calculations?" you're wondering.

Of course, it differs from situation to situation, but it's hardly a question of investment decisions. No, effective handling and high production rates depend instead on the fact that operators have a perfect tool with an optimal user experience in their hands.

And in terms of savings, it is often the unintended costs that upset the calculations – unnecessary downtime, unnecessary operating costs, unnecessary cargo damage and unnecessary absenteeism. Costs that are tightly linked to ergonomics, user experience, flexibility, visibility and safety.

This is precisely why we at Kalmar decided to invest in developing a completely new operator environment and cabin for o machines.

Focusing on all types of operation.

Safety

It's great that they could build a safety-tested cabin that is still so open and airy. The visibility is perfect in all directions.

Personal health

A boost for the industry. A compact working environment with many clever solutions and ergonomic innovations. Tested in every way.

User experience

This looks great. Like sitting in a high-class low-profile sports car. The right things in the right places, and a lot of options for the best user experience.

Efficiency

I won't get as tired in this. I have full control over everything. It won't be a problem for me to keep pace and focus during my tough shifts.

Overall feeling

Looking into the cabin. It looks incredibly exciting. Design, visibility, pedals, panels, buttons, symbols, surface areas. Your own specially designed operator's seat. Everything seems very well thought out and well planned.

Status

Absolutely clear. The next machine from Cargotec will have the EGO if I have a say in it. Now there will probably be arguments over who will drive each shift.



Nine challenges You can't resist.

EGO is a complete cab and operator environment. It has a radical new design with finely-honed layout and functionality. The nine challenges are just the tip of the iceberg. And the long list of improvements and details reveals a great understanding of, generosity to and consideration for our customers and operators.

#6



New designed joystick

The new joystick with built-in gear knob is designed to improve driving efficiency. It is optimised for maximum lifting capacity and ergonomically enhanced to reduce arm fatigue.



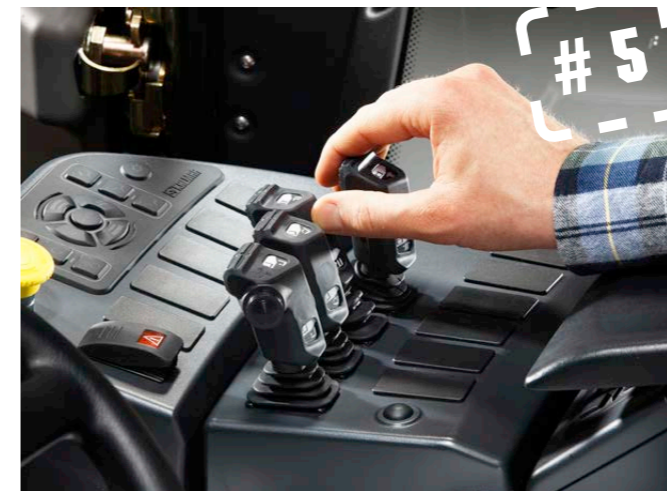
Optimised for visibility

Completely new open design. Designed with smart profiles and curved front and rear windows. Optimised visibility at all angles, with exceptionally good diagonal forward and rearward visibility. Strong outdoor feeling.



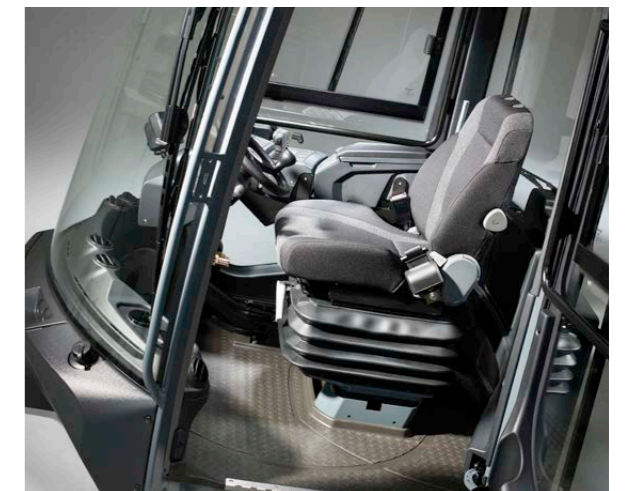
High capacity wiper

The smart horizontal wiper provides over 90% drying surface on the curved windscreen. Intelligently integrated with the parallel wipers for the roof window. Good visibility and safety even in extreme weather conditions. Road-tested in countries such as Canada.



Work console

The operator's extended arm. Easy to adjust. Easy to use and understand. Ergonomic and flexible. Here you'll find all the controls, switches and indicators necessary for efficient operation. Clear and well-placed panels and the controls for data display and the whole control system.



Multi-seat

The rotatable and fully-integrated Kalmar seat. Designed and developed for the best possible sitting posture, comfort and ergonomics for long shifts and demanding operations.



Ergonomic steering wheel

This convenient steering wheel is not just adjustable, it can also be tilted at an angle to the side. Thoroughly tested ergonomics on a whole new level. Reduced stress while driving and reversing.



Comfort pedals

A new flexible and fail-safe pedal system with adjustable pedal angle to provide the best ergonomics and minimal strain on the foot. A floor-based solution with a hanging pedal feel.



Climate package

Complete and flexible climate package that stands up to the high demands of the climate-tested EGO cabin. Large air intake, easy filter replacement in the front, well dimensioned and well-designed components provide complete interior comfort.



HMI design

An enormous amount of groundwork has raised human-machine interface (HMI) to a new level. Vision, hearing, touch, spatial sense, intuition. Everything comes together in a balanced design, layout and all-round thoughtfulness.

A healthy place for healthy finances.

A safe and efficient operator is good for our customers' business. This is our starting point for the whole EGO concept.

Although it hasn't been proven through general conclusions in scientific reports as to exactly what this means in pure economic terms, many of our customers have built up extensive experience of this in particular. And they have passed this on to us in a constructive way. Thank you.

Now we know from all our contact with our customers that conditions vary from location to location, from operation to operation.

That's why EGO has been developed and designed to meet the most varied needs and requirements. Amongst other things, we have modularised the whole concept from a common platform. This allows you to precisely specify the EGO cabin your business requires.

There is a foundation of genuine engineering work, based on a huge bank of experience from the market. And a great deal of inspiration from operators, from service staff, from corporate management.

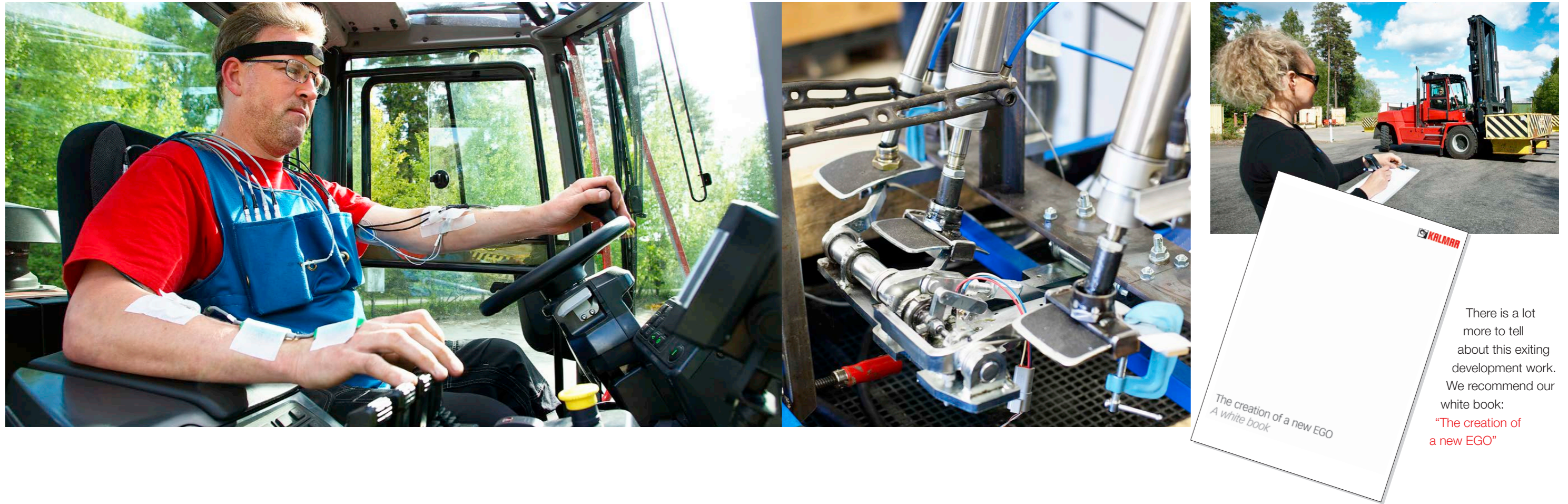
We then identified the three fundamental success factors that are linked to your operation:

- You can increase productivity and profitability with an optimised cabin and operator environment.
- You can reduce costs for personnel, equipment and damage with an optimised cabin and operator environment.
- You can improve safety and reduce risks and environmental impact with an optimised cabin and operator environment.

We can't promise that your business will take off because of EGO, but we are confident that you will be satisfied, and probably so pleased that you will never again doubt as to which cabin in the world is by far the most profitable for your operation.

EGO!





The creation of a new EGO.

We've learnt a lot over the years.

There is probably no other supplier in the world with more machines working in so many diverse load handling operations and environments than Kalmar.

Twenty years ago we made a major leap in the development of efficient and ergonomic operator environments, with the launch of the Spirit Delta cabin. Today, the Spirit Delta is still an incredibly popular operator environment among both customers and operators worldwide.

New added value

Why are we bringing out a completely new cabin and in addition to that calling it EGO?

This is a good question, and of course a lot of consideration went into the decision. The simplest answer is probably that the world has changed. New requirements are emerging among our customers and there are both old and new technologies which have become available in a completely different way from before. Can we create new added value? Kalmar's goal is to maintain its leading position in the

industry, which would enable our customers to rely on us for the opportunity to choose the best in the market.

It was, quite simply, time for the next leap in development.

What do the customers say?

It all started when two of our product developers and innovators, who were also involved with the Spirit Delta, travelled around the world and talked to operators, maintenance personnel, production and terminal managers. At the same time, selected specialists from the marketing side made contact with purchasers, logistics managers, company managers, etc. This resulted in extensive documentation and input.

Now began the delicate job of filtering out the golden nuggets from all of the material collected, setting goals and choosing the level of ambition. Optimising a cabin based on all the different demands, needs and ideas that emerged was a real challenge. Where are the limits to customer benefit and added value? Where do dreams about technological possibilities



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**EVERYTHING
COULD BE
IMPROVED
UPON.**

start to run out of control? Where are the economic parameters hidden?

From the first embryo to today's final results, we have driven ideas, solutions and designs right to the extreme. All this is so that our customers will be so pleased that they never doubt as to which cabin is by far the most profitable in the world during its time in their operation.

Hands-on groundwork

EGO is not just a product on paper. It has been produced in concrete reality. In fact, our two innovators began the extensive work quite simply by cutting an existing Spirit Delta cabin in half and cleaning out the entire interior.

The first step was to try out a frame with a curved windscreen. Already at the time the Spirit Delta was pioneering with its recessed side pillars and incomparable visibility diagonally forwards. Since then, the technology has evolved to shape the glass, so it was time to try out this solution. Then one component after another was developed with models in full scale, fitted in different positions,

rejected and restarted from scratch. The primary goal at this stage was of course to optimise visibility in all directions. Not least diagonally downwards, to the front as well as the rear. Traditional blind spots, but extremely important for both safety and efficiency. Here there was room for increased customer benefit.

Everything could be improved upon

This was just the start. The entire development process has since been spiced up with the latest research into ergonomics and the human-machine interface, leading industrial design, materials science and a modern industrial modular approach.

It all resulted in constant new challenges to contend with. But it has also drawn us into exciting innovation with many pioneering developments, and today's patented innovations as a result. Solutions customised for the customer and the operator that you can only find on an EGO.

There is a lot more to tell about this exciting development work. We recommend our white book: **"The creation of a new EGO"**



Kalmar offers the widest range of cargo handling solutions and services to ports, terminals, distribution centres and to heavy industry. Kalmar is the industry forerunner in terminal automation and in energy efficient container handling, with one in four container movements around the globe being handled by a Kalmar solution. Through its extensive product portfolio, global service network and ability to enable a seamless integration of different terminal processes, Kalmar improves the efficiency of every move. www.kalmarglobal.com

Kalmar is part of Cargotec. Cargotec's sales totalled approximately EUR 3.2 billion in 2013 and it employs approximately 11,000 people. Cargotec's class B shares are quoted on NASDAQ OMX Helsinki under symbol CGCBV. www.cargotec.com

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