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Welcome to Rimaster

Rimaster is a leading supplier of cable harnesses, electrical cabinets, electronics, and cabs for special vehicles and industrial systems.

We are a global group, whose origins and head office are in Rimforsa in Sweden.

Rimaster today employs more than 950 people across nine companies around the world. We have organizations for sales, design, development and production in Sweden, Poland, Belgium, France, Germany and China.

Welcome to our world of Simplicity.

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Rimaster is increasing its capacity

Rimaster is currently experiencing an historic expansion. During 2017, we have continued our growth internationally. We have established partnerships with several globally present customers, whom we now continue to follow throughout the world. At the same time, we are receiving many exciting enquiries from leading and innovative local actors. Insofar as personnel is concerned, we continue to grow – during this year alone, we increased by 260 and today we employ 950 in the Rimaster Group.

One of the contributing reasons for this success is that Rimaster is a mature concern. We have attained stability in all our business areas and have the time and the power necessary to develop the business in all areas. We are continually at work with leadership, organisation and quality issues, as well as with production. More and more customers have also discovered Rimaster's unique offering as a system integrator. The fact that we are able to create seamless synergies between our eight different business areas also contributes to the sharply increased demand for what we have to offer.

Rimaster is continuously working to ensure productivity and deliverability over the long term. Bearing in mind the great interest shown by our customers, we have decided to further intensify our expansion of capacity. We are doing this by way of investments in automation at our existing manufacturing units. But the establishment of a brand new production facility, in a new location is under serious consideration. Exactly where, when and how has not yet been decided, but the establishment phase has begun in the form of a thorough-going study. Our focus will be placed on areas with central geographical locations, proximity to our customers and good logistics opportunities linked to Europe. Our choice of region will also be based on language skills and the availability of labour.



I am really looking forward to coming back to you with more information in the future and want to take the opportunity of wishing you all a successful, active and Happy New Year. Thank you for choosing to work with and for us at Rimaster! ⋄◊◊

Tomas Stålnert VD Rimaster Group





When it comes to special vehicles, Rimaster is one of the leading development and manufacturing partners in the world. What's the secret?

"Rimaster is a highly specialised partner for system integration, offering a new kind of competitiveness by seamlessly creating synergies between our different business areas", says Julien Fambrini, responsible for marketing and sales strategy at the Rimaster Group.

Rimaster goes beyond!

What's the momentum?

"The special vehicles segment is one of the most exciting and diverse areas. We are talking about highly specialized, 'off highway' vehicles that are customized to meet the demands from a wide range of industries - from forestry and agriculture to mining, warehousing... and so on until your imagination fails. Still, developers and manufacturers of special vehicles share some common challenges. The machines are heavy duty, having to withstand the stress of harsh environments. They are produced in low to medium volumes, excluding the cost advantages that traditionally come with large volumes. At the same time, manufacturers are facing the increasing complexity of new technologies. Special vehicles are Rimaster's core business and we have formed our entire organization and business strategy to help our customers meet those challenges. Our system integration offer is the key to mutual success."

What defines Rimaster as a system integrator?

"We are renowned for offering high quality, cost effective build to print wire harnesses.

But Rimaster goes beyond! With development and production in eight different business areas: wire harnesses, battery cables, electronics, electrical cabinets, control panels, mechanics, cabs and development we can in-

"Our system integration offer is the key to mutual success"

tegrate in every part of the customers' product development process. We can help to develop and or produce everything from mechanical frames to electronics and complete electrical control systems, creating user-friendly interfaces and share our own innovations like the riFuse digital control unit. This way, we offer our customers valuable synergies resulting in smarter solutions, lower costs and more attractive products. It all starts with our long understanding and deep knowledge of special vehicles, making it possible to work in close collaboration with the customers' R&D."

So at the bottom line; what differs Rimaster from its competitors?

"Our system integration offer, combined with an ability to combine low and medium volumes with build to print in high volumes. With production sites in Sweden as well as in Poland and China we can offer this in in a global context while keeping proximity to our customers and their markets." ◊◊◊



Simplicity, Proximity and Global are Rimasters total solution.





Rimaster consoles with mounted Parker IQAN LC6 joysticks as well as a Rimaster display unit including a Parker IQAN MD5 display.

The image to the right shows the power plant, including the Rimaster riFuse unit, which eliminates fuses and relays, as well as Parker IQAN modules.

Swedish company, BRUKS Mobile is a leading supplier of mobile chippers. The company is known for its innovative, efficient and energy-efficient solutions and all development and manufacturing takes place in the village of Arbrå, 16 km north of Bollnäs. Their customers are, in the main, chipping businesses subcontracting for the large forestry and bioenergy companies.

"Today we are the market leader in Scandinavia, and have a good presence in Sweden, Denmark, Finland and Norway. Our hope is to extend our growth in the Baltic States and the other countries around the Baltic Sea and in the longer term gain more market share in Europe," says Ola Galfvensjö.

The new Mobile Chipper BRUKS 806 PT Trailer, launched at the big forestry fair Elmia Wood earlier this year, is a step along the way. After two years of intensive development work, the prototype is now out on hard tests and demos.

Integrated system

BRUKS 806 PT Trailer is the first project that BRUKS Mobile and Rimaster are undertaking together.

"We wanted a simpler and more modern control system. Rimaster got our confidence because we saw that they could offer a comprehensive solution including everything from development and the drawings to hardware,



Emil Forsblom, project manager at BRUKS Mobile and Rimasters development engineer Daniel Brolin.

"The electrical system and cabling got a whole new design"

cabling and programming. On top of that, Rimaster has well-documented experience in developing and manufacturing solutions for tough environments. A chipper definitely needs to work hard!" says Galfvensjö.

The Rimaster project team consisted of project leader Therese Ekengren, development engineer Daniel Brolin and System Design Manager Ulf Almén.

"We have designed the electrical systems and cabling, done the programming work, developed a lever console and a display box with associated mechanics, and delivery of the first system. The solution also includes Rimaster's own digital control and steering unit riFuse," Ulf Almén explains.

"We have also introduced several new solutions. Previously, the crane and the chipper had separate drive systems, and that meant two different displays and lever boxes. We have now integrated the systems, which means that the operator can monitor both the crane and the chipper from the same display and drive them from the same console."

Exceptional customer specification

Therese Ekengren says that their collaboration has been excellent – with an indisputable success factor:

"We got a fantastically good spec from BRUKS Mobile. It was detailed and very clearly spelled out the customer's expectations. It made it possible for us to do a really good job," says Therese, who tells about how Rimaster made use of a 3D printer when developing the console.

"By printing out the console prototype, we saved a lot of time and were quickly able to verify the outcome. This is a very good way to work during the development phase and, for this reason, we are considering new investments in this area."

"A stable rack"

"The electrical system and cabling got a whole new design," says Daniel Brolin.

"Previously, the fitters at BRUKS had to lay out a lot of cables manually. Now we have complete, ready-made cabling in one practical plug-and-play solution."

It is just that kind of foresight that appeals to BRUKS Mobile:

"A detail such as this means a lot because it saves time and effort in the assembly. In addition, we don't need to use a trained and qualified electrician to do the job."

Series production is scheduled to begin early in the new year, and Ola Galfvensjö is believing for a great interest from customers.

"The machine is based on both proven and new technology with an efficient chipper that is also inexpensive to run. It is driven by a larger tractor model – and the less fuel used by the tractor, the more attractive the machine becomes. Our test drivers are very pleased and reckon it's a stable rack!" ◊◊◊



CABLING

We are a leading supplier of signal and power cabling.

We specialise in complex, customised, comprehensive solutions that simplify your development and production process. With broad development competence we design all or part of the cabling as desired. Manufacturing takes place in modern production facilities with extensive quality processes and access to the latest crimping, braiding and injection technology.

CONTROL PANELS

We develop and manufacture control panels for all types of special vehicles.

As a supplier, we hold a special position since we are experts in all the disciplines encountered in a control panel - from casings to mechanics and metalworking, to cabling, electronics and instrumentation. The work takes place in close dialogue with the customer to ensure trouble-free introduction and production.



ELECTRICAL CABINETRY

We manufacture complete cabinets for control and regulation.

Our wide-ranging expertise in electrical systems, electronics and mechanics enables us to offer advanced comprehensive solutions. We take responsibility for the entire production process including material procurement, assembly, testing and delivery.

BATTERY CABLES

We specialize in battery cables, focusing on high quality, reliability of delivery and cost-effectiveness.

Using advanced production technology, including ultrasonic welding, automatic crimping and plastic injection, we optimise the cabling with respect to assembly, space efficiency and the environment. Automated manufacturing, a high level of employee competence and comprehensive testing ensure superior quality.

DEVELOPMENT

We have long experience of development for customers in a wide range of industries.

We specialise in electrical systems designed for special vehicles, but we also have in-depth knowledge of mechanics and mechatronics. Our development engineers combine a high level of systems knowledge with a profound understanding of market demands and are always working in close proximity to our other product areas.

CABS

We have extensive experience in delivering cabs to the world's leading specialist vehicle manufacturers.

It is often about complex, customer-unique solutions where we take responsibility for the entire production chain, from development to manufacturing and assembly. In close cooperation with your development department, we use 3D CAD in our design work and also take responsibility for the development of models and necessary verifications.



MECHANICS

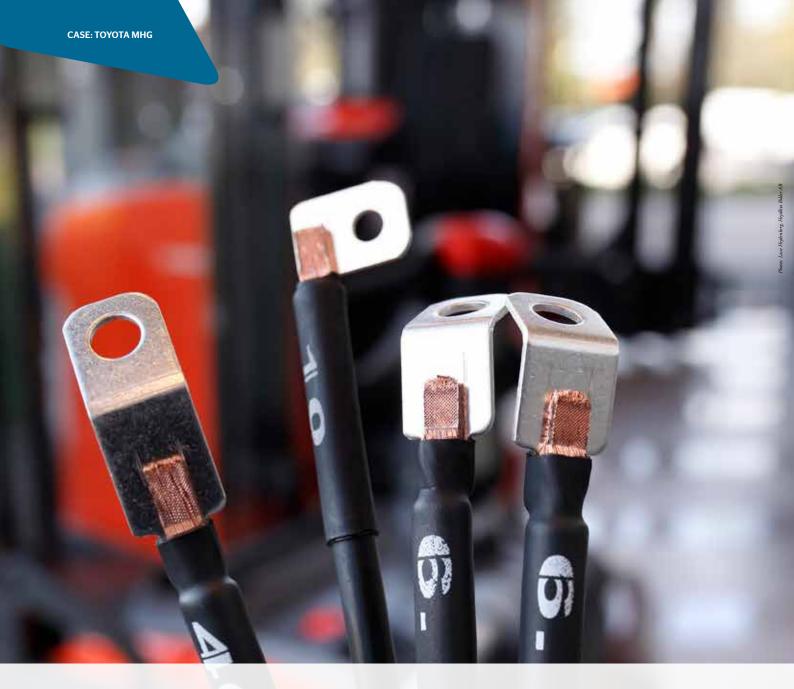
We have our own development and manufacturing unit for mechanical products.

This offering is a natural complement to our electrical systems and electronics business and affords us the opportunity of taking overall responsibility. We also have extensive experience in manufacturing related to assemblies of mechanics, electrical and electronic equipment, warehousing and delivery to end customers: from simple mechanical details to control panels and complex truck cabs.

ELECTRONICS

We offer prototype and series production of surface and hole mounted circuit boards as well as preassembled devices with mechanics, electronics and associated cabling.

Our production includes the latest technology in automatic surface mounting, selective and wave soldering as well as overmolding of components and entire circuit boards.



Ultrasonic welding is a smart way to save space in advanced constructions. At Toyota's behest, Rimaster is creating customer-unique solutions that provide increased flexibility in development and assembly.

"It's really only the imagination that sets the limits," says Sven-Inge Lennartsson, Design Engineer in the Toyota Material Handling Group.







Andreas Kronström





Andreas Kronström and Sven-Inge Lennartsson inspect an ultrasonic welding cable.

Toyota chooses ultrasonic welding

Since 1952, trucks have been manufactured in Mjölby. BT trucks are known worldwide for their Swedish engineering and reliability – and since 2000, the company has been in the hands of a mighty owner in the form of Toyota and the Toyota Material Handling Group. Mjölby is home to Northern Europe's largest truck manufacturing unit and the European headquarters of the group. Rimaster is just a few miles away in Rimforsa.

"Rimaster delivers both signal and battery cabling to us, and over the years we have developed a close cooperation. The fact that Rimaster can also offer ultrasonic welding services is a clear advantage," says Sven-Inge Lennartsson.

Lower volume, greater freedom

A traditionally designed crimped cable shoe is both long and bulky, and this can cause problems if the components are to be tightly packed together.

"For this reason, we have opted to connect the cable directly to a copper plate

"The geographical proximity to Rimaster means a lot to us"

that is attached by means of ultrasonic welding. In principle, you can attach anything along the length of the cable – it's only the imagination that sets the limits," explains Sven-Inge.

"This is of great advantage if there is a lack of space inside the machine because we achieve greater freedom as regards construction, together with simpler assembly."

"The production unit in Rimforsa has three ultrasonic welding machines," says Rimaster's Key Account manager, Andreas Kronström.

"The costing profile for ultrasonic welding is not very different from that of crimping with cable shoe. The advantages arrive later in the process in the form of

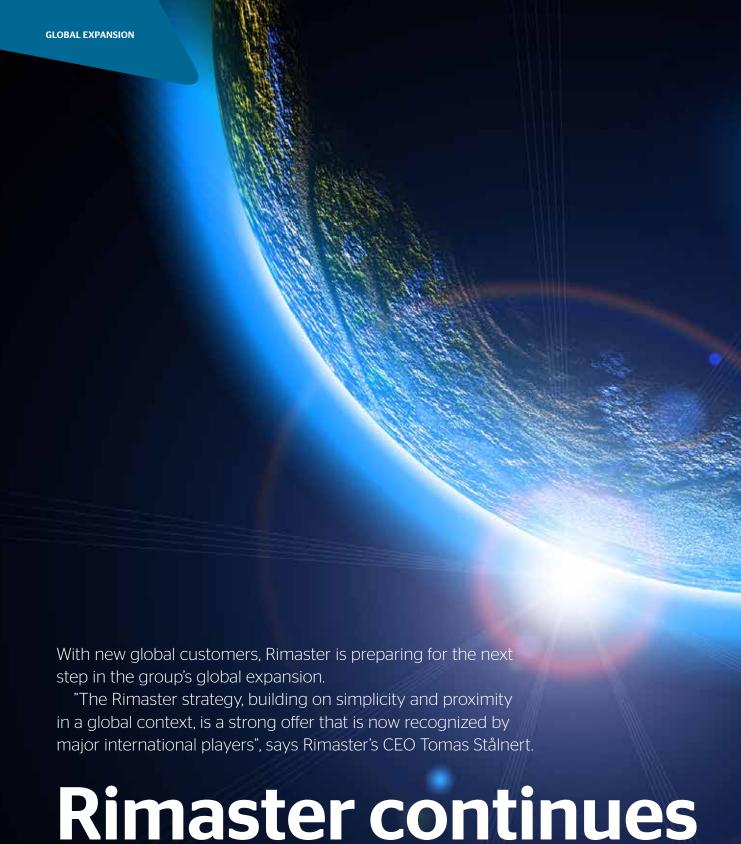
easier handling, since the method is space efficient and the plate can be angled and bent in the way you want."

Proximity is an asset

"The geographical proximity to Rimaster means a lot to us", Lennartsson confirms.

"We are making a deliberate attempt to keep transportation to a minimum, for reasons of sustainability and a better economy. In this case, this is working really well. The cable comes from Amokabel in nearby Alstermo, the processing is done by Rimaster in Rimforsa and installation at Mjölby. In addition, it's easy to meet to discuss different ideas and resolve any issues – which is a great asset in development work."

"We find the Rimaster people are very good at process control and are driven by a desire to develop their business. At the moment, several exciting investments are being made by them in the form of a robot cell for crimping and equipment for molding. And we're following all this with great interest!" ◊◊◊



Rimaster continues global expansion



German based compaction technology leader Bomag, Austrian loader cranes expert Palfinger and the french specialist of people and material lifting equipment Haulotte, have all chosen Rimaster as a partner on their journey.

"Bomag, Palfinger and Haulotte are three major global players with business and manufacturing on severeal important growth markets. Mutual trust and long-term cooperation means benefits for both parties. Rimaster can offer an experienced and stable organisation and we have the strength to follow them into new markets. Of course, this also gives us an excellent opportunity to continue the global expansion of the Rimaster Group", says Tomas Stålnert.

Rimaster's strategy to work in close proximity to the customer has been very important for this development, he states:

"Instead of relying on presence at our manufacturing sites only, we've established sales and engineering offices in European countries like Germany, Belgium and France, offering our global customers local presence and support on their original markets in their own language."

Swedish with a twist

Norbert Heib, Sales Manager at Rimaster in Germany, agrees. Global businesses with European background appreciate the combination of flexibility and proximity. This is much needed on an ever changing market:

"As a supplier, you really need to be able to follow your customers around the globe, offering the same proximity and performance no matter where. We are constantly evaluating our customers' needs, establishing local Rimaster representation when possible", says Norbert Heib.

"I think one of the main reasons to our success is the fact that we are a Swedish company. Sweden stands for innovative solutions, high quality production, reliable design and anti-corruption. At the same time, Rimaster is able to offer our customers the benefits of our own manufacturing in Poland and China."

Market in transformation

Timing is another factor that shouldn't be underestimated, he argues. The market is undergoing some major restructuring at the moment, constraining or even eliminating established suppliers.

"In this, Rimaster has a great advantage as we are a financially and operationally solid group. We've got everything in place no matter business area or activity. This making us able to offer high quality and secured

deliveries in the foreseeable future. I really think that is what our customers are looking for these days: long-term commitments that you can rely on. And Rimaster is ready!" $\Diamond\Diamond\Diamond$



Norbert Heib

Swedish company
Chargestorm was one of
the pioneers in e-Mobility.
Today, the company is the
market leader in system
solutions and charging
structures for electric vehicles.
The company's new top
seller is manufactured by
Rimaster in Rimforsa



Chargestorm leads the charger race

Chargestorm was started by the company's CEO Patrik Lindergren, Ragnar Gustafsson and companion Stefan Gabrielsson in 2009.

"The actors on the market at that time were making very simple products. We saw the need for complete system solutions and charging structures for electric vehicles," says Patrik Lindergren.

In 2010, Chargestorm launched its first system which was sold to the Swedish electricity company Jämtkraft.

"That year, four new electric cars were registered in Sweden!" recalls Lindergren

Leading in the Nordic countries

In 2017, the situation is quite different. Today, there are almost 40,000 rechargeable cars in Sweden and as electric-powered cars have evolved, more and more individuals, companies and organisations are opting for the technology. And Chargestorm is growing in line with the interest. Today, the company is the Nordic region's technology

"Rimaster had the experience, quality and production rate we needed"

leader and has sold 21,000 charger packages. It has 20 employees, a turnover of SEK 27 million, and is enjoying continued growth.

"We operate within three business areas. Charging stations for different types of electric vehicles, digital services in the form of our cloud-based web portal Charge Portal, used for monitoring and payment routines, and licensing of our electronics solution to other manufacturers."

Chargestorm technology can be found in most of the charging stations sold on the market and the company's operating systems are used by Norway's largest operators. Recently, Chargestorm has also signed an agreement with a global dealer to car-parking companies.

Rapid start-up

Chargestorm's new top seller, EVA Wallbox, is a charging station designed for homes, condominiums and businesses, and is being manufactured by Rimaster in Rimforsa, Sweden. Rimaster has overall responsibility for production and functional testing and also provides logistics services in the form of stockholding and delivery according to call-out.

"The choice fell to Rimaster on the grounds of their extensive competence in the field of electrical cabinets. There are many great subcontracting manufacturers who are good at putting in a circuit board, but we needed someone capable of looking after the whole works. We saw that Rimaster had the experience, quality and production rate we needed. It's a big advantage when you don't need to train up the supplier, since that takes both time and energy. In this way we could accomplish a rapid start-up," says Patrik Lindergren.

"The fact that Rimaster is able to offer a system solution is also a security should



Wallbox - Eva

Clear and simple symbols! The user can instantly see what's happening.

we need to broaden our cooperation in the future. But the most important thing for us is to have a business partner who is on their toes. We expect our suppliers to be continuously working on developing quality and efficiency."

Innovative future industry

EVA Wallbox is based on an intelligent system that can be connected to the Internet, EVA Connected, for monitoring and remote control. As the owner of an electrically-driven car, you can easily keep statistics on charging times and usage.

"This is a very interesting product area that we believe will grow a lot in the future," says Andreas Kronström, Key Account Manager at Rimaster.

"All kinds of smart and efficient system solutions for a more sustainable society are of great interest to us and we think it's really great to be going along with Chargestorm on this journey. We are two knowledge-inten-

sive companies with matching ambitions and who can be developing alongside each other."



Patrik Lindergren







Dewulf is a full-line supplier of potato and root crop processing machinery.

Dewulf is the world's foremost full-line supplier of potato and root crop processing machinery. With three locations in Belgium, the Netherlands and Romania, the company leads the industry in the development and production of agricultural machinery for soil cultivation, planting, harvesting, grading, storage and transport of potatoes and root crops. The fact that Dewulf is of Belgian origin is no co-incidence, explains Bart Maes.

 Belgium is the global leader within the potato processing industry and an European leader in the frozen vegetable sector. Neighbouring the Netherlands is the leading producer of seed potatoes worldwide.

Dewulf is a family business with a rich 70 year history and is currently under management of the third generation. Innovation, reliability, enjoyable collaboration and assisting the customer in finding the most economical solution are the cornerstones of Dewulf's business strategy. In 2016, with a close-knit team of 290 employees, the group achieved a turnover of 65 million euros.

Listen and learn

The first chapter in the story of Rimaster and Dewulf was written two years ago. Dewulf had initated a pitch in order to find a new supplier of wire harnesses. Several competitors were invited, Bart Maes tells.

 The suppliers were asked to produce samples of the wire harnesses with and without braiding, making it possible for us "Rimaster's high mix low volume offer is a perfect match for this kind of special vehicles"

to evaluate quality as well as material and craftmanship.

The pitch had four different stages – Rimaster was eliminated after the third and the job went to someone else.

– After a procurement, we always invite the suppliers that did not get the offer to a debrief. This time, Rimaster were the only ones that showed up. We ended up having a long meeting with an intense discussion about Dewulf's demands and how to meet the tough conditions related to this kind of special vehicles. I showed a lot of pictures and they asked a lot of questions, says Bart Maes who himself has a long experience from developing wire harnesses and braiding technology.

Three months later he got a call from Jean-Pierre Vanheel, Managing Director of Rimaster Belgium.

He told me that they had made a new sample that they wanted me to see. Actually I was surprised – that doesn't happen a lot.
 And Rimaster had really done their homework. This time they had gotten it all right.
 As we are an open minded organization,

and really like being listened to, we decided that we had room for one more supplier.

A growing industry

Rimaster's ability to listen and respond to Dewulfs' requirements is the momentum behind the collaboration.

- We also appreciate Rimaster's high quality standards and delivery performance. The Polish production plant has good quality routines and I think that the ongoing automatization project will further add to its deliverability. The fact that Rimaster is locally present in Belgium is of course an advantage, Bart Maes states.

Rimaster's high mix low volume offer is a perfect match for this kind of special vehicles. What started off with delivieries of wire harnesses for carrot processing machinery for Dewulf and its Dutch sister company Miedema now continues with wire harnesses for the group's potato processing segment.

With its global precense, Dewulf is the second largest player in the world within the industry – and the business is growing.

- The fast development of the agricultural sector provides new opportunities. Some countries, for example South Africa, are now switching from harvesting by hand to machines. In China we see a readjustment from rice to potatoes. Production of rice requires large areas meaning that the yield for potatoes is better per hektar than rice. ◊◊◊



Increased automation for global competitiveness

Making use of new automated processes, Rimaster Electrosystem in Rimforsa plans to ensure its global competitiveness. A new robot crimping cell and an automated warehouse are already in full operation.

"The results are improved continuity, enhanced quality and more qualified task performance," says Managing Director Mathias Nilsson.

The new robot cell produces power cabling and makes use of two robots – one with a "vision system" that picks cable connectors

and one that does the actual crimping. The cell is programmed for 40 different cabling formats and has a time-per-unit of 15 seconds.

"With the robot cell, we have achieved improved production continuity. Since it can be loaded up and continue to work after the last shift, we can also increase our effective production time," says Nilsson, who believes that these investments have yielded many benefits. An increased degree of automation reduces Rimaster customers' lead times and increases quality and flexibility – but it is also important from an operational point of view.

"Removing monotonous work from the production area and, instead, making available qualified tasks leading to opportunities for development makes Rimaster an attractive workplace." Last autumn, a new automated warehouse also went on-stream. Up until then, all components were manually picked from the storage shelves, and that took up a lot of time. With the new vertical storage lift, the process has been greatly simplified. All the components are stored in the machine that receives the orders digitally from the production system. The system then guides the staff through the picking list.

"It's an extremely time and space efficient system, and it also contributes to increased quality assurance. Using a laser pointer, the machine indicates which boxes the various components are to be found in, and this minimises any risk of mistakes being made."

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