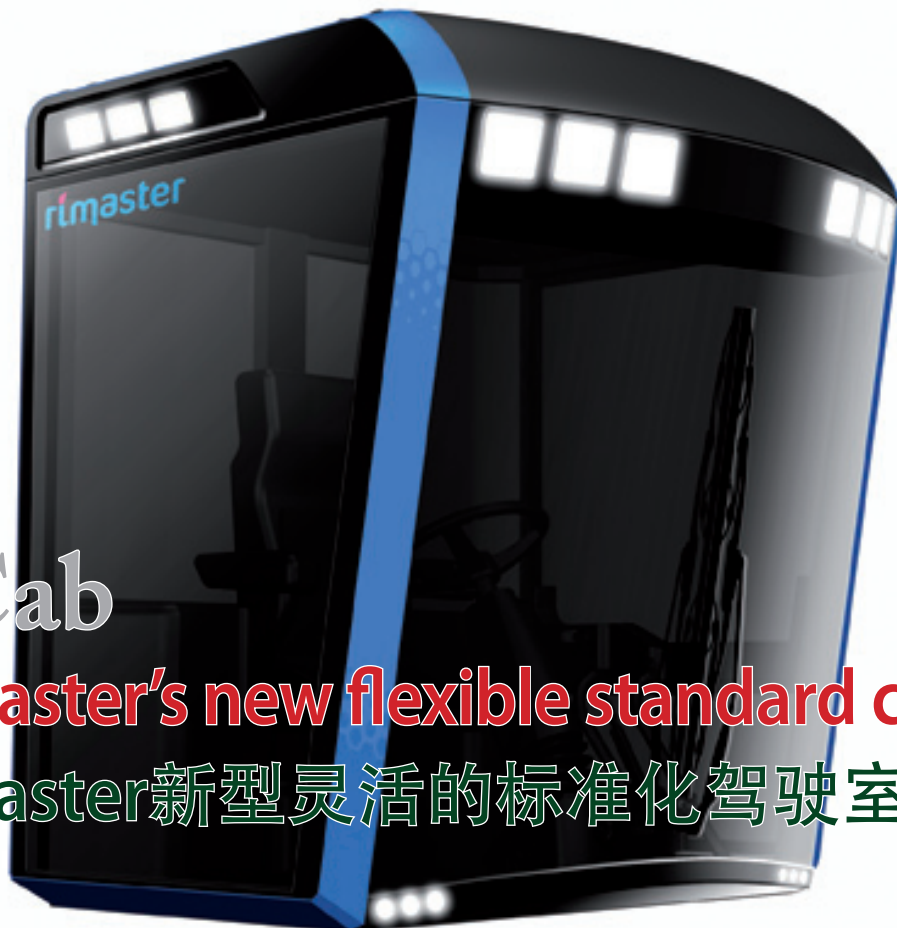


圣诞快乐
新年快乐

*Merry Christmas and
A Happy New Year!*

Welcome to our world of SIMPLICITY • Winter 2013



AgriCab

- Rimaster's new flexible standard cab!
- Rimaster新型灵活的标准化驾驶室!

riFuse

- Rimaster's unique new power module!
- Rimaster独特的新型数字电源模块!



Jan-Olof Andersson
CEO Rimaster Group

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 with origins and headquarters in Rimforsa, Sweden. Rimaster have today approximately 600 employees in seven companies all over the world.

We can support you with sales, design, development and production in Sweden, Poland, Belgium and China.

Our vision is to be a partner that creates simplicity for our customers and sets the standard in the global industry.

– Welcome to our World of Simplicity!

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Hi, and most welcome to a new issue of Riview!

Now, we have been publishing our company magazine for five years, and hopefully, those of you who have been with us for that period still feel “at home”. Our ambition has always been to give a glimpse of the Rimaster World; who we are, where we are going and what we do to create simplicity for our customers.

This time, we have a focus on technology and competitiveness, two concepts that are very much related.

Rimaster is already today fully active on the global market, and we will subsequently increase our presence in rest of Europe and Asia, continuously adapting market organization as well as administration, production and deliveries to the demands and challenges of tomorrow. Fine-tuning efficiency and production adjustments will be integral to our business for the foreseeable future – and not as stand-alone projects but as continuous processes. Our vision is that Rimaster shall be the natural supplier and partner to care for your business needs, offering the best mix of quality, reliability, flexibility and cost.

Frankly, this means that we unbiased will continue to select production site based on who at any given moment can meet the customers specific needs, be it focus on lead time, low cost or proximity. Hence it is – and will continue to be – our responsibilities to present the customer with an optimized price-performance mix in any given moment.

A key element in being continuously attractive is to increase our customer offering, e.g. by meeting the customer's needs at an earlier moment. Our driving force is always to strive to create simplicity for our customers, and products like our AgriCab and riFuse have been developed to meet defined customer's needs and demands. I am fully convinced this is the right way to go, thus also creating an added value for our customers as well as ourselves. Based on today's operations, we have an explicit ambition to continue do develop and enhance our business, our customer offerings and to move upwards in the “food chain”. We will let the process of continuous adaptations and adjustments be the key to future success.

– Please, be welcome to meet the future with Rimaster!


Jan-Olof Andersson
CEO Rimaster Group

嗨，最欢迎来到新一刊的Riview！

现在，我们已经出版公司杂志五年，希望一直陪伴着我们的你们此间仍然有“在家”的感觉。我们的目标一直是展示Rimaster世界的一瞥：我们是谁，我们要去的地方，我们做什么来为客户创造简约。


此次，我们专注于技术和竞争力，这是非常相关的两个概念。在日益全球化的经济局势下，保持我们的竞争力是非常必要的，因为这是我们能继续吸引客户的唯一途径，无论当前和未来。

Rimaster今天已经充分活跃在全球市场上，我们也将随之增加在欧洲和亚洲的其他地区的表现，不断地调整市场、行政、管理、生产的组织结构和按要求交货迎接未来的挑战。微调效率和生产调整在可预见的未来将是不可或缺的，且是作为连续过程而非单独的项目。我们的愿景是：Rimaster应作为您自然的供应商和合作伙伴来关心您的业务需求，提供质量、可靠性、灵活性和成本的最佳组合。

坦率地说，这意味着我们将不偏不倚继续基于在任何时候都能满足客户的特定需求，无论是侧重于交货时间、低成本或接近性来选择生产基地。因此在任何特定时刻呈现给客户最佳的价格效能组合式是 – 而且将继续是 – 我们的责任。

不断保持吸引力的一个关键因素是提高我们的客户供给，如：通过较早地满足顾客的需要来达到。也可以通过我们自己研发来达到客户要求，对此我们打算继续坚持。我们的动力始终是为客户和产品努力营造简约，如AgriCab和riFuse已发展到能满足定制化客户的需求和要求。我完全相信这是一条正确的路，同时也为客户以及我们自己创造附加价值。基于今天的业务，我们有一个明确的志向：继续发展和加强我们的业务、客户产品并且向着“供应链”的上方移动。我们将让不断适应和调整的过程成为未来成功的关键。

欢迎与Rimaster一起见证未来！


Jan-Olof Andersson
Rimaster首席执行官

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AgriCab

– A new Rimaster project to develop a standardized and modular cabin for i.e. agricultural machinery.



Bart Lowette

AgriCab – Rimaster’s tailor-made modular series production cab.

A new, innovative project Rimaster has engaged in since last year, is the creation of a standard, yet highly flexible and adaptive, cab to suit the needs of smaller farming equipment OEMs.

Bart Lowette, Project-Manager within Sales & Sourcing, has been appointed project manager for “AgriCab”.

Bart, where did you get the idea to build a standard cab for agriculture machinery?

– Well, when I visited “Agritechnica 2011”, I met several independent manufacturers of farm equipment who all had one problem in common: availability of tailor-made cabs.

Why is that a problem? There must be numerous cab manufacturers around?

– For sure there are, but there are few who supply to smaller OEMs. Currently, smaller manufacturers of farm equipment often have to buy their cabs from one or two major manufacturers, who have limited possibilities or might even lack the interest in adapting their cabs to specific requirements.

– As a result of this, all cabs need modifications,

ranging from moderate to extensive, to suit individual needs. Hence, buying a standard cab often proves to be very uneconomical from a rational point of view.

– This is not the only draw back with buying “off the shelf”. Furthermore, when buying a cab from a major supplier, the cab is wired in a “standard” configuration that often will require moderate to rather extensive re-wiring or modification, to suit the individual needs. This is the drawback of series production. The big suppliers are building their cabs in long series, with few if any possibilities to alter the design to suit a customer.

(Cont’d. on p. 4 ➡)



An example of AgriCab's flexibility: the same cabin can be equipped with a conventional door, a rear-hinged door or a sliding door, all to suit each customer's needs.

So, would it not be easier and better for the OEMs to design a build a cab of their own?

– No. For each OEM to design and manufacture a unique cab usually is not an option, as it will be far too expensive. Some don't even have the resources to do so.

– This is where I saw an opening for us, since we, for long, have based our customer approach on the fact that we are very flexible. “High Mix – Low Volume” is a very well known Rimaster “buzz-phrase”, and, better, we actually can live up to this.

You mean, out of a marketing statement you saw an actual business opportunity?

– Yes, as a matter of fact, I did. If we could create a cab that is offered in a modular design, we have a possible great market.

– The initial project mission, was to unite a group of OEMs with whom we could communicate while designing a modular cab; basically standardized yet flexible enough to suite different companies and different types of machines. This includes a generic, adaptive wiring where our new power control unit “riFuse” is a key element.

And from that point, what has happened?

– Talks were started in late 2011 with a group of OEM-manufacturers and an “AgriCab Group” of five interested companies was then formed.

– A milestone was reached when we in December 2012 could sign a non-disclosure agreement with all these companies. The pioneering five companies will continuously supply specifications and feedback. Some have already – without any commitment from either side – begun to simulate incorporation of the standard cab in their next, projected designs.

It sounds a bit un-orthodox that ‘competitors’ suddenly join forces. How come?

– To be honest, I am pleasantly surprised by the open attitude shown by these five companies.

– As a representative for one of the companies said: ‘we are competitors when it comes to per-

formance and equipment functionality, but we are not primarily competing with the cabs. Can we cooperate in building a very good cab that will suit the needs of all the companies involved, then we will all benefit from this!’

And from a Rimaster perspective?

– We can create a standardized, basic cab design with such flexibility that most general requirements can be met.

The new AgriCab will be a very good alternative, in many cases the best, for manufacturers

... an average of 200-250 cabs a year when production is in full swing..

of e.g. farming equipment who don't have the wish or the resources to develop a modern cab of their own. By customizing the standard cab, we can also offer “non-general”, customer specific wishes in a ‘plug-and-play’ cab.

– I see Rimaster is a perfect partner cab production; benefitting from our vast experience

of engineering, electrical systems design and, of course, cab manufacturing.

And the market is there?

– Yes, for sure! We can anticipate a good market for this cab, where initial planning talks of an average of 200-250 cabs a year when production is in full swing.

Still being flexible?

– Yes, such a production volume would still allow us to cater for the needs of the customer who will need only a handful of cabs a year, while we continuously are competitive for those who need dozens or more.

Talks and ideas are good, but what about real progress?

– Progress is far better than we could have expected. When the AgriCab Group met mid-April, there was a clear “Go!”, allowing the project to enter a new phase. Thus, the first prototype cab will be ready for testing early next year, mounted on a sprayer.

– The sprayer manufacturer will, in close communication with Rimaster, perform a duration field-test on our cab. The feedback obtained out of this process, will enable us to optimize AgriCab, before we hit the market, Bart Lowette says with confidence. ■

AgriCab basic facts

- The design is based on a common “standard” but highly “customizable”, including e.g. a variety of doors; being sliding, regular opening or “suicide” doors. Everything between “naked cab” and “plug-and-play” is possible, according to customer's specifications.
- Designed with “Easy access” in mind, which in combination with a sufficient interior height and the modular door system, means AgriCab can offer i.e. easy maintenance and service access.
- Flexible to meet specific requirements from low volume customers.
- Integration of Rimaster's new riFuse intelligent fuse/relay box, integrated lighting in the roof etc. The integration of riFuse (see separate article on page 9) in every AgriCab, will add to the modularity and flexibility.
- As few mechanical components as possible to ensure an easy integration process for all customers.

Disclaimer: As all images are artist's impressions, they do not necessarily show a cab in the final version.

AgriCab

— Rimaster新项目，开发一个标准化和模块化的驾驶室用于如：农业机械



Bart Lowette

AgriCab—Rimaster定制化驾驶舱量产

从去年开始，Rimaster就开始投身于一个全新的、有创意的项目，即建立一种新标准的能够满足小型OEM农场设备的驾驶舱，且兼具高度灵活和可适应的。销售和采购项目经理Bart Lowette已经被任命为“AgriCab”项目的负责人。

Bart,您是从哪里得到的启发，想到给农业机械制定一个标准驾驶舱的？

当我参加“2011年德国汉诺威农机展览会”时，我遇到了几位农机设备制造商，他们都有一个共同的问题：定制驾驶舱的可用性。

为什么这成了问题？不是有众多的驾驶舱制造商吗？

确实有很多制造商，但是很少厂商为小型OEM生产。目前，小农场设备制造商经常需要从一个或两个主要的制造商那里购买驾驶舱，而这些制造商并不太可能将他们的标准驾驶舱调整到适用于特定需求或是对此没什么兴趣。

由此，所有的驾驶舱都需要适度或是较大程度的修改以满足个性化的需求。从理性的角度看，购买标准的驾驶舱通常是非常不经济的。

这不是无法“买现成”的唯一原因。再有就是，当从一个主要的供应商那买来一个驾驶舱后，驾驶舱通常都会是“标准”配置，而那樣的配置常常需要适度或是较大程度上重新连接或修改以适应个性化的需求。这是多类产品的缺点。大的供应商对驾驶舱进





AgriCab灵活性的一个例子：同一驾驶室可配传统的车门、后铰链门或推拉门，一切以满足每个客户的需求。

那么，由OEM商设计并制造他们自己的驾驶室更容易、更好吗？

不是。单个OEM商通常不会选择设计、制造一个独特的驾驶室，因为这样会太贵了。

有些制造商甚至都没有资源去做。

这里我看到一个机会，因为长久以来，我们都非常灵活为客户服务。“多品种小批量”是众所周知的Rimaster的“流行语”，而且我们确实可以做到这点。

您的意思是，从市场报告看到了一个真实的商机？

是的，我确实看到了。如果我们能提供一个模块化设计的驾驶室，我们将会拥有一个巨大的市场。

最初的项目任务是当设计一个模块化的驾驶室时，我们能够联系一批OEM商与我们进行沟通并收集反馈；基本上标准化足以灵活地应用于各类公司和各类机器。包括一个通用的、可变的电源布线，我们新的控制单元“riFuse”是一个关键元素。

那之后又发生了什么？

一群认为有可能制作一种驾驶室来满足大多数人需求的OEM制造商在2011年第开始了讨论。然后有5家感兴趣的公司组成了“AgriCab”。

2012年12月这些公司签订了保密协议，标志着一个里程碑的开始。这5家先行公司将不断提供规范和反馈。

有的公司甚至在没有任何承诺的条件下，将标准驾驶室列入了他们下次的的项目设计中。

这些可能是竞争对手的公司忽然联手合作听起来似乎有点匪夷所思。为什么会怎样呢？

老实说，我很惊讶这5家公司的开放态度。一个公司的代表说：“论及性能和设备的功能，我们是竞争对手，但就驾驶室而言，我们不是主要的竞争对手。我们可以一起

合作，创造出一个非常好的驾驶室来满足各家公司的需求，然后我们将会共赢！”

Rimaster如何看待？

我们可以创建一个标准化的、基本的驾驶室，灵活的设计来满足广大客户的需求。新AgriCab将是一个非常不错的选择，在很多情况下是最好的，如对农场设备制造商而言，他们不抱任何希望或他们没有资源来开发自己的现代驾驶室。通过定制标准的驾驶室，我们还可以通过提供“不一般”来满足客户的特定需求。

得益于我们经验丰富的工程、电气系统设计、驾驶室制造，我认为不论是驾驶室的开发还是生产，Rimaster都是一个完美的设计合作伙伴。

有市场吗？

当然！我们可以预见到这种驾驶室良好的市场前景，初步规划当生产全面展开时平均每年有200 ~250个驾驶室。

仍然灵活吗？

是的，这样的产量不仅能使我们满足每年只需要少量驾驶室的客户，而且我们也能够不断地竞争以满足大量的客户。

说法和想法都是好的，但是真正的进展呢？

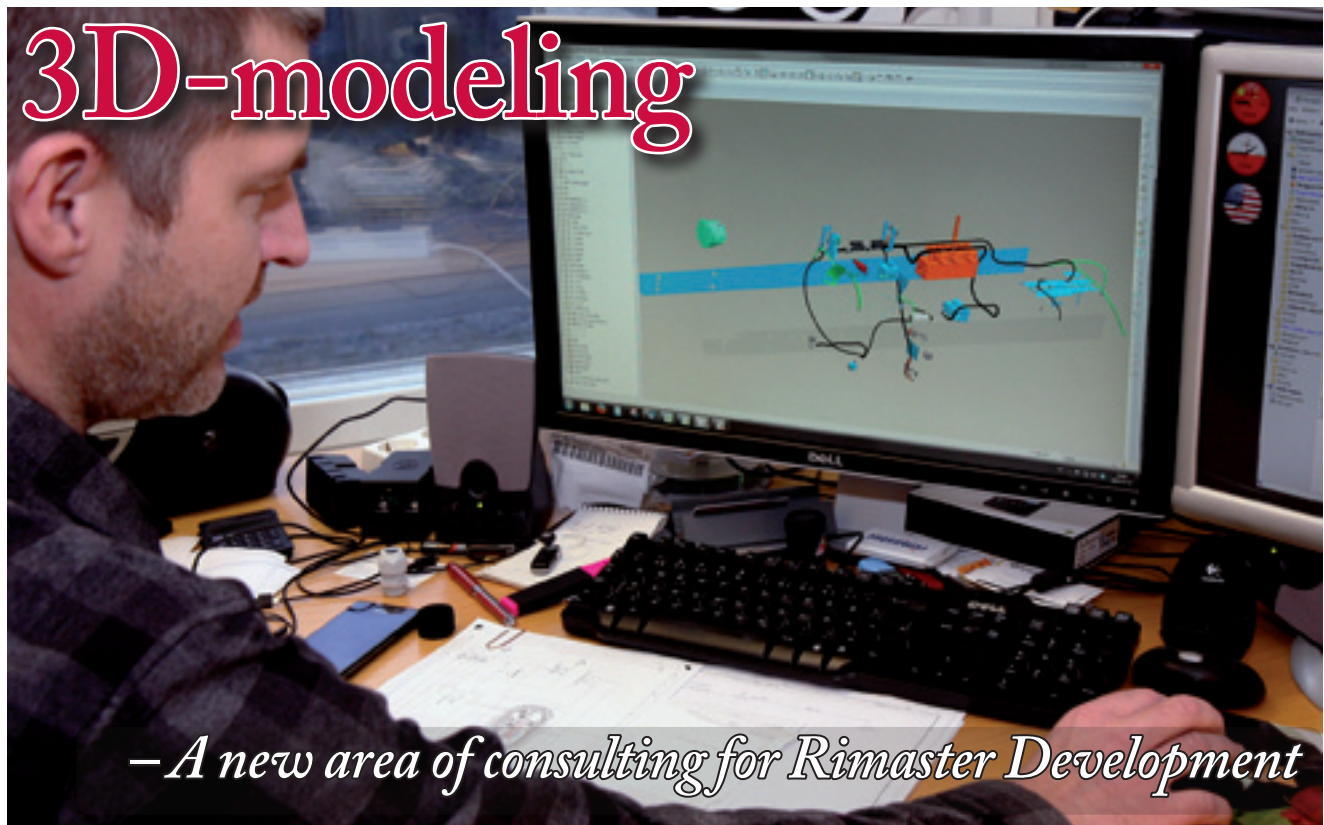
我敢说，进展比我们预期的更好。各方在4月中旬开会时，大家很明确的决定“做吧！”。这就意味着项目进入了一个新阶段。第一个原型驾驶室将于明年年初准备测试。

经过Rimaster和制造商密切协商，我们第一次操作驾驶室将被安装在一个喷雾器上，并进行一次长时间的实地测试。这个过程中所获得的反馈信息将帮助我们优化AgriCab，进而推广上市。 ■

AgriCab

- 设计是基于一个共同的“标准”高度“定制化”，包括如各种门、滑动、定期开门或“自杀”门。根据客户的具体要求，一切“裸车”和“即插即用”之间是可以实现的。
- 设计将“轻松访问”考虑进来，要结合一个足够的内部高度和模块化系统，意味着我们可以提供易于维护和服务的使用方式。
- 灵活以满足低量产客户的特定需求。
- 集成我们的新riFuse智能融合/继电器箱，舱顶集成照明等。在每个AgriCab里集成riFuse，将增加模块化和灵活性。请参见第11页上的一篇文章。
- 尽可能少的机械部件，为客户制作一个简单的集成过程。

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– As we have extensive experience of Pro/ENGINEER, or "Creo", as the software is called today, we have become really good at design and design in 3D. The words are Fredrik Larsson's, one of Rimaster Development's experienced engineers.

– Funny thing is that we also can assist other companies in the software, focusing on cabling design in 3D; firms that may be customers of ours but not necessarily.

The fact that expertise in 3D-modeling and Pro/ENGINEER /Creo in itself would be an asset was rather unexpected, as most saw it as a handy tool for their own design work. However, as from last summer Rimaster Development have found a new "business niche", as software training consultants.

– It actually started when one of our major clients saw in what rational way we worked with the wiring for some of his equipment.

– They then decided to acquire that competence themselves, but the funny thing was that when they turned to our software provider for help, he referred to us, says Fredrik.

– First the customer came to us here to Söderhamn, just to get an introduction, and later we have had engineers on site with them to help them get started.

In what today is known as Rimaster Development, the use of advanced software in the form of Pro/ENGINEER, to design electrical systems, began already in 1998.

It was a result of getting Caterpillar as a customer, who made their requirement simple and clear: *All CAD work is to be done in Pro/ENGINEER! Take it or leave it...*

– Pro/ENGINEER, or Creo as I have to get used to call it, is very production friendly, and once you have done the basic set-ups and learned to work with the program, there are many benefits and bonus effects.

– So, really maybe we should thank Caterpillar for that they were harsh in their demands on us, Fredrik says with a smile.

Fredrik describes how one can save time, first in the design- and construction phase but also when it comes to prototype development.

– When an electrical system, or a wiring diagram, for e.g. a forest machine has been drawn in Creo, it is possible to, in parallel with the mechanical design and prototype building, also produce a totally complete wiring, ready for installation.

– All wiring can thus be in place once the machine is taking shape, which will give huge time-savings compared to previously, when you literally had to go with a ruler to measure e.g. cable lengths on a already finished machine or chassis, says Fredrik.

– We can also already at the design stage control where cable channels should be located or where devices should be placed.

Working with 3D-design also provides other advantages, says Fredrik.

– If a component is relocated, say moved to the other side of the frame, it's a piece of cake to modify the wiring harness for it. Once all the basic data is in the system, the program itself calculates e.g. cable lengths.

3D-modeling of complete electrical systems is a technology that is rapidly gaining ground, even in Sweden. In the future, you do not need to produce a prototype physical cabling just to test. Instead, you know, right from the design stage, that it fits and win thereby not only time in several stages, but also, of course, money.

– We also see that some of our customers choose to switch to 3D-modeling and design, and even 3D prototyping, and we see just as positive. When we have an established "partnership" or working relation, it is only beneficial for us to work in the same environment, says Fredrik.

– We already today do design and construction of the entire electrical system for several of our customers, and for them as for those who have their own system designers, it is really advantageous that we both work with Creo.

– As we have an extensive experience in 3D-modeling, especially when it comes to electrical system design, we see that we as independent software training consultants have a lot to offer in the consultancy role as well, Fredrik Larsson summarizes. ■



- 对于今天所谓的Pro/Engineer或Creo软件而言，我们有着广泛的经验，我们已经擅长于设计和用3D设计。这些话是来自Fredrik Larssons，Rimaster Development的资深工程师。
- 有趣的是我们也在用教育和培训软件的方式来帮助供应商，主要针对于电线的3D设计；还有就是可能成为我们的客户的公司。

现如今的Rimaster Development，早在1998年已使用Pro/Engineer来设计电路系统。因为Caterpillar这个客户提出了简单、清楚的要求，为了获得他们的认可，我们有了现在的结果。

所有CAD制图工作都由Pro/Engineer来完成；要么接受，要么放弃

Fredrik笑着说道，Pro/Engineer或者Creo非常适用于生产，一旦你已经完成了基础工作以及学会用程序来工作会获益良多。与此同时，我们还真的应该感谢Caterpillar给我们严厉的要求。

Fredrik描述如何能够节省时间：首先在设计和造型环节，但是也有在首样开发环节，当电气系统或者线束原理图，比如用Creo画了一套Forest 机器，这个相类似于机械设计和首样制造，同时也制造了一套完整的线路图直接准备装配。

Fredrik说：所有的线束只要机器成型，所有接线都能到位，这样的方式相较以前必须要去用尺子测量的方式节省很多时间。

Fredrik还说：用3D来设计还有另外的优势是设计上面更加直观，设计者可以清楚看到是如何布局的，设备应该放置在哪里，孔径应该多大等等。

如果零件是重新定位，比如转移到另外的一个架子上，设计者很容易就可以修改线束。

如果基础数据在系统里面，程序本身很容易就可以修改线束。

也有很高的精确度，错误基本上或者总是起源

于错误的期初数据，或者项目管理本身没有清晰确切的功能。

全电气系统的3D制图是一项正在快速发展的技术，甚至在瑞典。在将来，你可能不需要实际做出线束来测试，而是通过3D设计做测试。这不仅仅适合于一个阶段，而是适用于多个阶段，当然也是非常经济的做法。

我们一些客户选择用3D做模型和设计，甚至有3D首样，由此我们可以看到它积极的一面。当你已经建立合作伙伴或者工作站时，这是唯一在同一个环境下对我们有益的地方。

我们如今已经用Creo来给我们几个客户做整个电气系统的设计和结构，受益匪浅。

事实上用3D制模和Creo本身相比手工工具做的设计工作来说不可预测得多了。然而Rimaster Development已经找到了一种新的业务模式，做软件培训顾问。

Fredrik说，事实上，当我们主要的客户开始看到用理性的方式给他的一些设备做接线时，他们决定自己来研究，有趣的是他们找我们的软件供应商寻求帮助时，我们的供应商却又把他们介绍给了我们。

Fredrik总结说，起初客户来到瑟德港找我们只是想做一个了解，但后来我们的工程师在网上帮助他们开始了项目，正如我所说，我们有广泛的3D制模的经验，尤其在电气设计方面。

当越来越多的公司用这种方式工作后，我们发现自己成了培训顾问。

riFuse

– Tomorrow's technology for today's electrical systems



“– There will be moments when you wish it would be a lot easier to replace a fuse.

Or rather not at all.”

That is how Rimaster presents riFuse, the unique digital circuit control box, which is now ready for commercial use. Rimaster's accumulated experience and expertise in power management, software and hardware development in heavier vehicles is now being used in an innovative and groundbreaking product.

The result, after years of development, is riFuse, now undergoing field trials and in 2014 available in the market. riFuse is a new type of control box, developed by Rimaster and using intelligent power system monitoring thus replacing relays and fuses.

One of the main reasons to focus on new technology has been the market's demand for more flexible and generic electrical system, hard to design with current technology. An added bonus with this new technology, is that a more precise fuse function can be obtained.

Simplifying any complex wiring, riFuse will offer a power control fuse solution where the fuse/time current-curve is far more “intelligent” than a conventional fuse or circuit breaker. Thus, riFuse will offer a new state-of-the-art for the design of next generation heavy-duty electrical systems.

The target group is mainly manufacturers of heavy vehicles and special equipment such as forestry equipment, agricultural machinery, construction machinery and other special vehicles operating in harsh environments.

Each riFuse module can easily replace conventional solutions with fuses and relays in a power system. In addition, riFuse is designed to facilitate the design of com-

plex electrical systems in small spaces where each module can be placed more or less anywhere, as there is no need to think about having easy access for fuse replacement.

The combination of decentralized entity

with the ability to deliver and monitor high currents makes riFuse unique in the market, and will set a new standard in the construction of modern electrical systems.

As the design of riFuse rests on more than 30 years of experience in complex wiring and advanced electrical systems, Rimaster has the firm ambition to be a leading supplier of intelligent power control modules for heavy duty applications, be it vehicle- or fixed machinery mounted. riFuse system solutions will be available for commercial use in 2014. ■



Malwa 560 / Photo: Benjamin Wallin

In close cooperation with forest machinery manufacturer Malwa International, a number of riFuse modules have undergone field trials in late 2013.

Ulf Almén tells

'The riFuse story'

– I have for a long time, maybe up to ten years, been thinking of how to make a more modular distribution box for, say, forestry equipment and other special vehicles, says Ulf Almén at Rimaster Development in Söderhamn.

– We have over the years seen customers express a steady increase in requirements and preferences – they simply want to be able to include more advanced features, and simplify the inclusion of optional equipment. In Rimaster, we have a long and thorough experience in electrical system design, and often face the problem of being able to balance the demands for e.g. functionality, flexibility and size with available quality and price.

The wish was to find a solution where you can easily make changes and have increased functionality. Initially, the idea of Rimaster Development was a solution based on a series of relays on a circuit board, where you with jumpers would be able to connect different functions controlled via CAN. The disadvantage of these solutions is that they still rely on conventional fuses. Meanwhile developments of available electronics advanced, resulting in new circuit technology and thus new opportunities.

When the idea of a panel box module based entirely on electronics, was presented to Rimaster's board, it was not long until the engineering staff at Rimaster Development got a "thumbs up". "OK to proceed", said the board, who – seeing that this was in line with Rimaster's ambitions to develop their own technical solutions – approved a feasibility study.

This study clearly showed two things: a) that there was a market for this type of solution, and b) Rimaster Development had the necessary skills to engage in such a complex project.

Consequently, the board took a decision to give a green light to the project.

– The idea from the beginning was that a riFuse module should be able to replace the fuse box in the cab, but we have during development found that in most cases it is better to go for a decentralized distribution box, including the fuse box or circuit breakers, based on one or more riFuse modules, says Ulf Almén.

– We also see that the use of a CAN bus is universally growing where already today sensors and valves with built-in CAN bus are in use. So therefore we believe that putting even the main fuse box on the CAN bus just right.

Some interesting possible new applications were found during the development of riFuse. These include a possibility to make an intelligent shutdown of diesel engine electronics, using riFuse for forward-reverse proportional control of electric motors and replacing the timer for added heating in cabins with a riFuse solution.

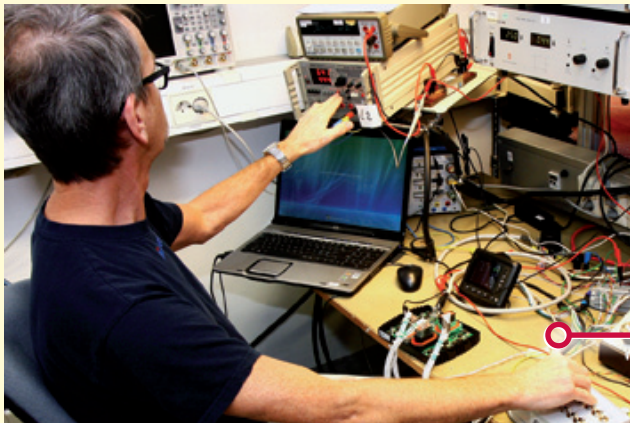
– In the development team, we are happy to see that we now, end of 2013, have prototype modules with forest machine manufacturer Malwa for field-testing. As the results from these tests are so promising, a first set of pre-series modules has already been built.

– We are also happy to see that AgriCab, Rimaster's indigenously developed new standard cab, naturally will be equipped with two modules per unit, Ulf Almén summarizes "The riFuse Saga". ■



riFuse - A brief technical description

riFuse is a generally structured I / O module, intended to be used as a fuse and relay replacement. riFuse can be applied both before and after a battery isolator and thus can supply the selected output to remain after you turned off the battery master switch. Since the supply voltage is continuously measured, it can be defined so that at overvoltage, riFuse will switch off the device and thus protect connected devices.



- The module has a high traction on the outputs - nominal 15 A, briefly up to 25 A.

- Parent system determines whether the output should be on or off and which fuse curve and starting to use. If the output is through the power goes outside preset values according to the selected curve, the output turns off.

- Actual current at port 1 >> 8 can be continuously monitored via CAN/J1939 (CAN = Controller Area Network, a message based protocol that allow devices to communicate without a host computer). When the total current output 1 >> 8 exceed 100 A, the unit turns itself off.

- Output 1 >> 4 can also be used in PWM mode to control e.g. motors.

- The four input status can be read via the CAN bus and the number of cover since the last reading (frequency).

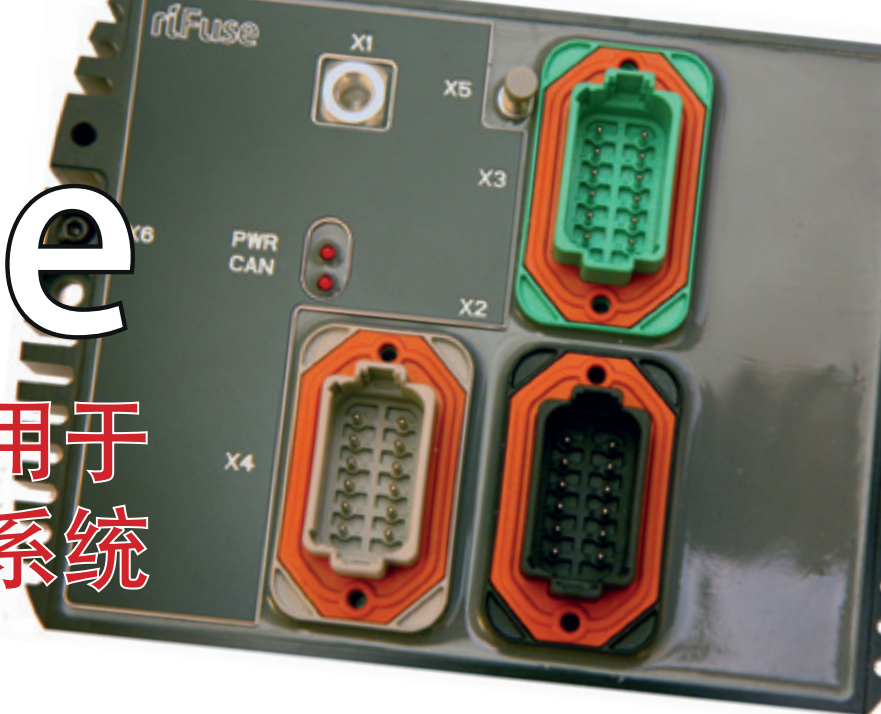
- The module consists of an aluminium housing with all the electronics potted; moulded in vibration damping encapsulation.

In 2013, the first riFuse modules have undergone extensive laboratory testing, as well as mounted in vehicles. Torbjörn Gunneriusson is one of the test engineers in Söderhamn.

Disclaimer: As riFuse is the subject of continous development, specifications may change without prior notice.

riFuse

- 未来技术用于 当今的电气系统



- 再见了，保险丝盒！ 欢迎您，riFuse！

这就是Rimaster如何呈现riFuse，独特的数字电路控制箱，现在可以用于商业用途了。Rimaster在重型车辆的动力管理、软件和硬件开发方面累积的经验和专业知识目前正被用于兼具创新性和突破性的产品。

把重点放在新技术的一个主要原因一直是市场对更灵活的和通用的电气系统的需求，使用当前的技术很难设计达到。我们发现这种新技术一个额外的好处是可以得到更精确的保险丝功能。

经过多年的研发得到的riFuse，目前正在进行现场试验并将在2014年投入市场。riFuse是由Rimaster开发的一种新型的控制箱，使用智能电力系统监控从而取代继电器和保险丝。

简化了复杂的布线，riFuse将提供一个电源控制保险丝解决方案，其中熔断器/时间继电器将比传统的熔断器或断路器更“智能”。因此，riFuse将为下一代的重型电气系统设计提供最先进技术。目标群体主要是重型车辆及专用设备的生产厂商，如林业设备、农业机械、工程机械和在恶劣环境下工作的其他专用车辆。

在一个电气系统中，每个riFuse模块可以很容易地取代传统解决方案中的保险丝和继电器。此外，riFuse旨在使在狭小空间的复杂的电气系统设计便利化，每个模块在任何位置可以放置更多或更少，因为没有必要为方便更换保险丝做考虑。

实体分散与传输和监测高电流的能力相结合使得riFuse独特于市场中，并会在建设现代电力系统的领域树立新的标准。

由于riFuse的设计建立在超过30年的复杂的布线和先进的电气系统的经验上，Rimaster有坚定的志向成为重型应用中智能动力控制模块的领先供应商，无论是车辆或固定的设备。riFuse系统解决方案将于2014年用于商业用途。



与林机制造商Malwa International密切合作的一些riFuse模块在2013年底经历了现场试验。
图文：Malwa / Benjamin Wallin

Ulf Almén 讲述riFuse故事

我有很长一段时间，也许长达十年，都在思考如何制造一个更加模块化配电箱用于林业设备和其他特种车辆，在瑟德港Rimaster Development的Ulf Almén说到。

— 多年来我们眼见客户表达了持续增长的需求和偏好 - 他们希望能够包含更先进的功能、简化可选设备。在Rimaster，我们在电气系统设计有一个长期和彻底的经验，并且经常面临平衡各方面需求的问题，诸如功能性、灵活性、尺寸与可用的质量和价格。

我们的希望是找到一个解决方案，不但可以轻松地进行更改，而且有更多的功能。最初，Rimaster Develop的想法是基于电路板上的一系列的继电器，通过跨接器连接不同功能而由CAN进行控制。这些解决方案的缺点是仍然依赖于传统的熔断器。而与此同时电子产品的发展进步，产生了新的电路技术，新的机遇由此诞生

— 当完全基于电子的面板箱模块的想法被提交给Rimaster的董事会后，Rimaster Development的工程人员很快得到了一个“很棒”、“OK继续”的答复。董事会看到这与Rimaster开发自己的技术解决方案的野心是一致的，从而批准了可行性研究。该项研究清楚地表明了两件事：

- 1) 这类的解决方案是有市场的，和
- 2) Rimaster Development拥有必要的技能来搞这样一个复杂的项目。因此，董事会做出决定给了这个项目绿灯。

一开始的想法是一个riFuse模块应能够替换驾驶室的保

险丝盒，但我们在开发过程中发现，大多数情况下，最好基于一个或多个riFuse模块使用包含保险丝盒或电路断路器的分散的配电箱Ulf Almén说到。

我们也看到当前CAN总线使用的普遍增长，连感应器和阀门内置都在使用CAN总线。因此，我们认为，甚至把主保险丝盒放在CAN总线也是正确的。

riFuse的开发过程中，发现了一些有趣的可能的新应用。这其中就包括使柴油发动机电子智能关机的可能性，使用riFuse的正反比例控制电动机和更换计时器，以增加加热驾驶室与带riFuse的解决方案。

我们研发团队很高兴地看到，现在即2013年底，为林机制造商Malwa提供的原型模块的现场测试。这些实验结果很有希望，第一组的预系列模块已经建立。

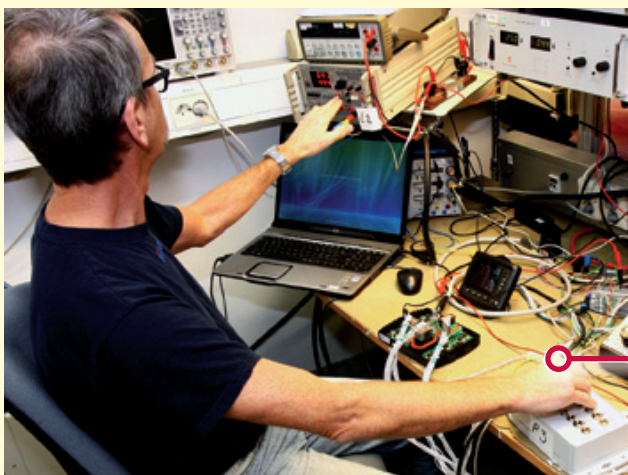
我们也很高兴地看到，AgriCab，Rimaster自行研制的新标准驾驶室，自然会配备每单位两个模块，Ulf Almén为“riFuse传奇”总结到。



riFuse – 技术介绍

riFuse通常是I/O结构的模块，旨在被用作替换保险丝和继电器。riFuse可以用在电池隔离器前后，从而可以在关闭了电池总开关后持续输出。由于电源电压连续被测量，当过载时就能被定义，riFuse将在此时关闭设备，从而保护相连接的设备。

该模块具有高牵引力的输出 - 额定15A，高达25A。



母系统决定输出是否应该打开或关闭、哪些保险丝回路并开始使用。如果输出是通过电源根据所选择的回路达到外部预置值时，输出关闭。

在端口实际电流 $1 > 8$ 可连续通过CAN/J1939监控（CAN=控制器区域网络，一个基于消息的协议，允许设备无需主机进行通信）。

当总电流输出 $1 > 8$ 超过100单位关闭。

输出 $1 > 4$ 也可以用在PWM模式来控制，例如电动机。

四个输入状态可以通过CAN总线和自上次读数（频率）覆盖数量被读取。

该模块包括一个坚固的铝制外壳、所有的电子，成型减振封装。

在2013年，第一个riFuse模块在两个实验室进行了广泛的测试，也安装在车辆中进行了试验。瑟德港的测试工程师之一Torbjorn Gunneriusson说。

Horn Cab Center



*A new “one-stop-shop”
for Rimaster’s mechanical production*

From January 2014, Rimaster has moved all mechanical production and assembly in under the same roof. The workshop in Kisa is to be closed by mid-December 2013 with machinery as well as other equipment and staff moving to Horn, to create a “Rimaster Cab Center”.

Here, everything needed for production of complete cabs and other mechanical products is to be found; from the development department to sheet metal cutting, assembly and delivery.

Approximately four million SEK has been invested by the property owner Regenten Fastighets AB in Rimaster Cab & Mechanics newly renovated factory in Horn, about 100 kilometres south of Linköping.

In addition, Rimaster itself has invested about a million SEK, and now all manufacture and assembly of e.g. cabs for trucks and other special vehicles, is concentrated in one place.

The reasons for Rimaster concentrating its mechanical production resources in one place are mainly logistical, but it is obvious that a more rational production planning and better use of staff also will be clear advantages. It has been a challenge to have such a small operation - at present some twenty employees - in two locations, even if they are just 25 kilometres apart.

– Now we are able to get the team together, to build “a winning team” that is ready for what we see as a likely expansion in the second half of 2014, says Sandra Fäldt, site manager for Rimaster Cab Center in Horn.

– Closing and then moving an entire factory that is in full swing is a rather complicated process, and we cannot disturb - or indeed worry - our customers.

– So, we had to begin quite early the relocation of less frequent material, and we have even been doing some pre-production of more critical components.

– As soon as operations in Kisa were shutting down, we had to be prepared to move of all heavy machinery, press brake, laser cutting et cetera, Sandra says.

Concentrating development and production resources to one place, also means that you get better possibilities to meet customer requirements.

Existing customers as well as new “prospects” have shown interest in new projects that can include everything from component manufacturing and contract assembly to development and production of complete units.

(Cont'd. on p. 14 ➡)



For Atlas Copco, Rimaster builds a number of different cabs in their Horn workshop, including one for the ST1030 loader (below). Photo: Atlas Copco



Cab Center i Horn *(cont'd.)*

On the cabin side it is no secret that Rimaster see Atlas Copco as an extremely important customer. Today, six different cabs are finished, with some additional models on their way in, and in addition, high-end cabs are being built for other customers as well.

On the development side, focus is on AgriCab, the new flexible standard cab Rimaster develops together with a group of European manufacturers of special machinery for agriculture. Rimaster Cab & Mechanics has overall project responsibility, working closely together with Rimaster Development.

– The first AgriCab cab prototype is to be readied early 2014, and that's a product that we hope a lot from, says Sandra Fäldt.

– We estimate the market for AgriCab to be very good, and after the prototypes that are now under construction, we will continue with building a pre-series that will go on field tests. I expect that we will be able to begin a series production as early as next autumn

Rimaster has in cooperation with the property owner invested heavily in making the renovated factory in Horn to a viable, efficient and employee friendly production. For environmental sustainability, investments include a brand new geothermal heating system.

A mix of indigenous production and contract work for e.g. Atlas Copco, is seen as the future of Rimaster Cab & Mechanics.

– Rimaster Cab Center is a significant investment in a fully renovated and entirely tailor-made factory, so I see that now we will have every opportunity to grow and become an even more vital part of the Rimaster Group. We might even need to expand our floor space – the place is there so we do have an expansion potential, summarizes Sandra Fäldt. ■

When Rimaster is concentrating all mechanical production, including cab building, to Horn, the focused resources gives a good opportunity to bring in additional, various types of cabins in production. Below is a cab for the truck manufacturer Linde finished.



Sandra Fäldt, Manager for Rimaster Cab Center



Sandra, you have a somewhat unconventional background to be manager for a cab factory...?

– Yes, I guess I might, even though I actually started to work for Rimaster back in 2003.

However, it's true, I actually have no formal technical background – I'm originally a cook!

– Cab production came to be my interest when we in 2011 had the idea of starting a series production for cabins in our factory in Borne Sulinowo in Poland. I was appointed project manager, and my first task was to conduct a feasibility study for the project. Although nothing came of the idea at that time, I was thrilled by this rather heavy industry and here I am.

You have over the years had a few different careers even within Rimaster, so what do you think of this new challenge – does it worry you?

– Oh, no, not at all. My career in cooking did not last so many years, as I got tired of it and felt that I wanted to do something different. So, in the late 1990s I started to work for Ericsson in Linköping where I initially assembled mobile phones. After a few months I was appointed supervisor, but when Ericsson in 2001 downsized the operations in Linköping, I applied for a job at Rimaster, says Sandra.

– Here I started again on the assembly line, but was after a while offered a job as production supervisor, which I gladly accepted. In 2006 I got the job as quality- and environmental manager. I've even during a brief period in 2010 worked with planning and purchasing. Overall, my various tasks and roles within Rimaster, have given me a very good platform to stand on for this job.

And now you are the head of the "heaviest" manufacturing site, at least if you look at what each unit weighs?

– Yes, I am Operations Manager of our mechanical manufacturing, now concentrated to our newly renovated factory in Horn. I have overall responsibility for manufacturing, ranging from material flow to deliveries. Inherent in this is of course also the daily operation and not least from that perspective I welcome that we now concentrate our resources to the factory in Horn, says Sandra.

– That is one important reason to why I enjoy working for Rimaster. We have a solid organization, yet able to make quick decisions and no matter who you are, there is always someone who will listen to your ideas and opinions.

– I've always felt the support for both myself as an individual as well as of my decisions. This is also something I think characterizes us – we have a learning organization, where decisions, "right" or "wrong", are being analyzed and evaluated to be the basis for new decisions. It creates a sense of being "safe and secure", which allows you to dare to take decisions, and I see that as very positive, Sandra Fäldt summarizes. ■

Rimaster驾驶室中心



- 专注于生产驾驶室

在2014年1月Rimaster将把所有的机械生产和装配搬到同一屋檐下。业主Regenten Fastighets AB为Rimaster Cab & Mechanics在霍恩的厂房新装修投入大约400万瑞典克朗，该厂房位于林雪平南部大约100公里。此外，Rimaster本身已投资约一百万瑞典克朗，从而现在所有生产和组装如卡车和特种车辆的驾驶舱都集中在一个地方。在克萨的生产线将在2013年12月关闭，机械设备和人员将转移到霍恩，以创建“Rimaster驾驶室中心”。在这里，生产完整的驾驶室所需的一切条件都具备，从研发部门到板材切割、装配以及发货。

Rimaster集中的机械生产资源在一个地方主要原因是物流，但明显的优势也体现在更合理的生产计划以及更好的人力配置。目前大约二十名员工分别在两地工作一直以来是一个挑战，即使他们相距仅25公里。

— 现在我们能够把团队集中到一起，打造“一个成功的团队”，为我们2014年有肯恶搞的扩大做准备，Rimaster驾驶室中心现场经理Sandra Faldt说。

— 紧锣密鼓地进行着的关闭并转移整个工厂是一个相当复杂的过程，我们不能打扰，或让我们的客户担心。因此，我们不得不从很早开始就不频繁使用材料进行搬迁，我们甚至对更多的关键部件进行了预制做。

— 一旦克萨业务被关停，我们必须做好准备搬迁所有重型机械、折弯设备、激光切割设备等等。

集研发和生产资源于一处，也意味着有更高的可能满足客户的要求。现有客户以及新的“前景”已表现出对包含从零部件制造到装配合同，以及开发和生产完整产品的新项目的兴趣。

在驾驶舱方面，Rimaster视阿特拉

斯·科普柯为一个非常重要的客户是显而易见的，如今已完成六个不同的驾驶舱。此外，也为其他客户生产高端驾驶舱。

在开发方面的重点是AgriCab，是Rimaster与一批农业专用机械的欧洲制造商一起开发的新的灵活标准的驾驶室。Rimaster Cab & Mechanics负责整个项目，与Rimaster Development紧密合作。



Rimaster为阿特拉斯·科普柯在霍恩制造了多个不同的驾驶室，其中一个用于ST1030加载器（如下图）。



Rimaster驾驶室中心。。。

— 第一个AgriCab驾驶室原型计划在2014年初准备完毕，这是一个寄予我们很多期望的产品，Sandra Faldt说。

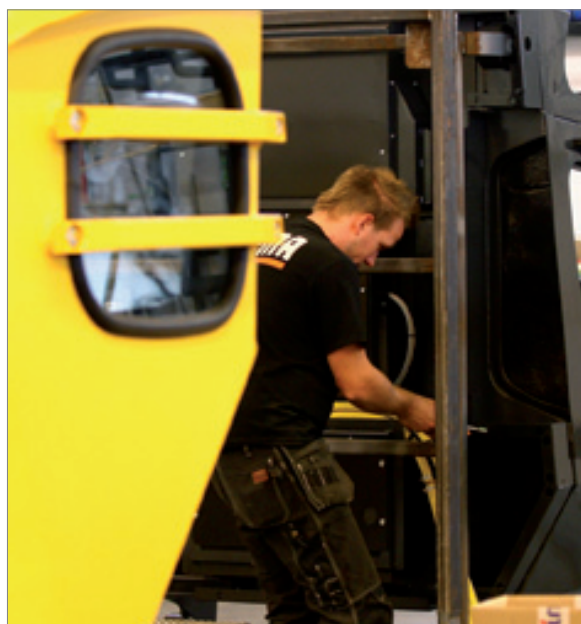
我们估计AgriCab将有很好的市场，而且原型制作完成后，我们将继续与生产前期系列用于现场试验。我期望我们将能够最早在明年秋季开始量产。

Rimaster已与业主合作在霍恩共同投重资建设一个可行、高效、员工友好的生产基地。为环境的可持续发展，投资项目包括一个全新的地热供暖系统。

对于混合本土生产和工作合同的方式，如阿特拉斯·科普柯，被看作是Rimaster Cab & Mechanics的未来。

Rimaster驾驶室中心是一个重金打造、完全量身定制的工厂，所以我看到现在我们将有充分的机会来发展壮大并成为Rimaster集团的一个更为重要的组成部分。我们甚至可能需要扩大我们的地面空间——空间已经有了，所以我们确实有扩展到可能，Sandra Faldt 总结到。

当Rimaster将所有的机械生产，包括驾驶室制造集中在霍恩，集中资源提供了制造更多不同类型驾驶室的一个很好的机会。下面是为卡车制造商林德完成的驾驶室。



Sandra Faldt 是Rimaster驾驶室中



Sandra，作为驾驶室工厂的经理你有的背景有点不合规

— 是的，我想我可能是。尽管我实际上为Rimaster工作早在2003年，然而我确实没有正式的技术背景 - 我原本是厨师！

我对驾驶室生产感兴趣是在2011年我们有了在波兰Borne Sulinowo的工厂开始量产驾驶室的想法的时候。我被任命为项目经理，而我的首要任务是进行项目的可行性研究。虽然当时这个想法没有产生任何结果，我被这样的重工业所打动以至于我达到现在这里。

你这么多年来经理了一些不同的职业生涯，即使在Rimaster内部。你如何看待这个新的挑战-这让你担心吗？

— 哦，不，一点也不。我的烹饪生涯并没有持续太多年，当我厌倦了时就得觉得自己想做一些不同事。所以在90年代末，我在林雪平的爱立信公司开始了组装手机的工作，几个月后我被任命为主管。但当爱立信在2001年缩减在林雪平的业务时我向Rimaster申请了一份工作，Sandra说。

— 在这里，我又开始在流水线上工作，但过了一段时间被提议做生产主管，我欣然接受。2006年我得到了作为质量和环境管理经理的工作。我甚至在2010年的一个短暂的时期参与过计划和采购的工作。总的来说，我在Rimaster承担的角色和各项任务，给了我一个很好的平台来胜任这份工作。

现在你是最“重”的生产基地的负责人，至少如果你看的是每个产品的重量？

— 是的，我是机械制造的运营经理，现在关注我们在霍恩新装修的厂房。我对生产制造整体责任，从物流至发货。当然这也是日常运作，至少从这个角度讲我很高兴将资源集中到霍恩，Sandra说。

— 这是为什么我喜欢在Rimaster工作的一个重要原因。我们有一个坚实的组织，但能够迅速做出决定，无论你是谁，总会有人谁听你的想法和意见。

作为个人和自己做的决定我一直感受到所得到的支持。我觉得这是我们的特点 - 我们有一个学习的团队，在分析和评估各种决定是“正确”或“错误”的基础上得出新的决定。这样营造的是“安全放心”，从某种意义上说，让你敢于作出决定，而我认为这是非常积极的，Sandra总结。



RiCompetitive

Management Team: Yong Shen, Anders Jonliden, Peter Haglund, Jean-Pierre Vanheel, Tomas Stålnert, Iwona Uszakiewicz, Peter Yngvesson, Sandra Fäldt, Pernilla Norman och Jan-Olof Andersson

– **THE MARKET IS CHANGING** at an increasing pace, and we must move with it, being flexible and constantly prepared to adapt to new scenarios, says Pernilla Norman, Executive Vice president of Rimaster.

– This is why we last spring began to work with a systematic change process. Launched in October, "RiCompetitive" as we call it, is basically about ensuring that we in every business opportunity, in every moment remain competitive

– It's simply so that our competitive position, or our ability to create greater value for our customers than our competitors can, is the advantage we have that at the end of the day determines whether anyone wants to buy from us.

The main reasons for "RiCompetitive" include that order intake varies widely both within and between quarters, something that naturally can create uncertainty, internally and externally. Adapting the organization to a new order, allows us to create a better, even more integrated operational stability. Added to this is what is now a part of everyday life, clear and constant demands from customers to minimize costs.

– We see that many of our customers see transfer of production to other countries with a different cost level as a way to go. We then have no option – we just have to be prepared to "hang on" and try to meet the customers in various innovative ways if we are to continue to be suppliers.

So, what is the solution for Rimaster then?

– Well, there are no simple solutions, not if you want to continue to be a serious company that cares about lasting relations with both customers and staff as well as with our suppliers, says Pernilla Norman.

– We must at any given moment continue to "sharpen us," continually trying to follow any step our customers may take. Though, we must not be afraid to see the "big picture" and take major, comprehensive and structural decisions that are clear and simple to understand, providing long-term effects.

Such a decision is to build a partially

new organization for Rimaster in Sweden, effective as from October 2013. Now, Rimaster's Swedish production consists of four operational units, thus allowing locally for a higher level of focus, gain greater flexibility and an improved ability for mobility and as a major side effect also create ability to greater local accountability.

– One direct effect is a decision to close our workshop in Kisa, to concentrate all mechanical production and assembly to one place, the newly

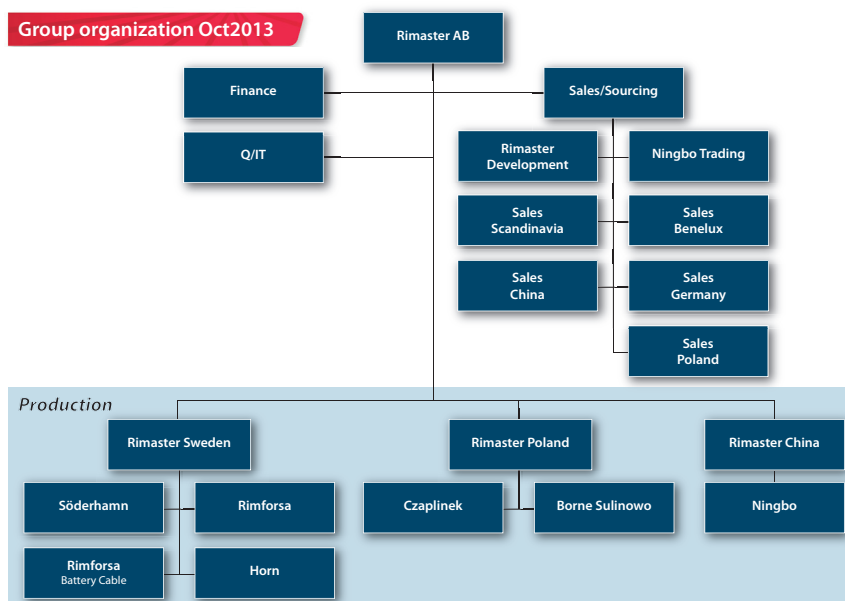
renovated and refurbished factory in Horn.

– This will allow us to better and more rational serve our customers, as we will have e.g. all cab expertise in one place, thus creating a "Cab Center"; a competence centre for cabin production we see long term will be a very interesting "leg" to stand on, says Pernilla Norman.

From January 2014, Rimaster will have production at four units in three locations in Sweden; two in Rimforsa, one in Horn and Söderhamn with a total production floor space of 10,000 m². Already in October 2013, Rimaster reorganized its administration, which now is better adapted to the market situation as well as the new production organization.

In parallel was also launched a comprehensive "cost-cutting" program for the Swedish operations, which will improve results with approximately 15MSEK. ■

Group organization Oct2013





通向未来之路

管理团队 Yong Shen, Anders Jonliden, Peter Haglund, Jean-Pierre Vanheel, Tomas Stålnert, Iwona Uszakiewicz, Peter Yngvesson, Sandra Fäldt, Pernilla Norman, Jan-Olof Andersson

— 市场以不断加快的步伐在变化，我们也必须随之变化，不断准备而且保持灵活，以适应新形势，Rimaster的执行副总裁Pernilla Norman说到。

— 这是为什么我们今年春天开始进行系统的变革工作的一大背景。十月我们推出了“RiCompetitive”，基本上是关于如何确保我们在每一个商业机会，在每一个时刻保持竞争力。

— 简单的说就是我们在的竞争地位，或者较之竞争对手我们具有能为客户创造更大价值的能力，就是优势，也就最终决定是否有人想从我们这里购买。

为“RiCompetitive”的主要理由包括订单量差别很大内和宿舍之间，东西自然也带来不确定性，内部和外部。调整组织结构以形成新的秩序，使我们能够创造一个更好的、更综合的业务稳定性。在此加上一点就是，现在每天的日常工作，客户明确和一贯的要求是降低成本。

— 我们看到许多客户因成本原因将生产转移到其他国家。如果我们仍然想做他们的供应商就让我们别无选择 - 我们只需要做好准备、等待着，并尽量以各种创新的方式满足客户的需求。

那么，Rimaster的解决方案是什么呢？

— 如果你想持续的做一个关心客户和员工，以及与供应商的关系的工资，没有简单的解决方案，Pernilla Norman说。

— 我们必须任何时候继续“磨砺我们”，不断地试图跟上客户可能的任何一步。尽管如此，我们决不能害怕从大局出发，采取明确和简单易懂的全面的和结构性的决策，而这些决定将带来长期的影响。

这样的决定是部分地构建Rimaster在瑞典的组织结构，从2013年10月开始有效。现在Rimaster瑞典的生产包括四个业务单位，从而加强本土关注、获得更大的灵活性和移

动性，同时一个主要的附带作用是也提高问责和改进能力。

— 一个直接影响是决定关闭我们在克萨的生产线，集中所有机械的生产、组装到一个地方：霍恩的新装修的工厂。

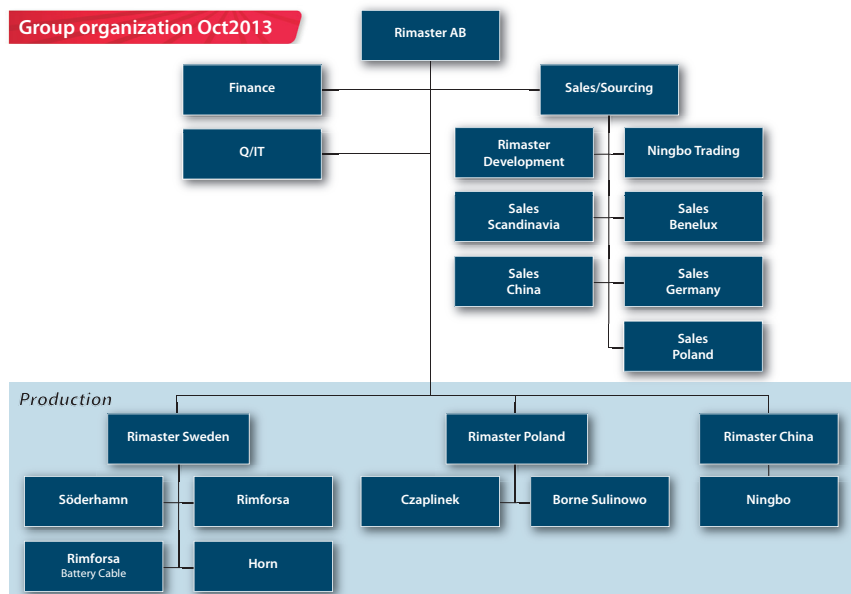
— 这将使我们能够更好、更合理的服务客户，因为我们集所有驾驶室的专业知识于一室，从而构建“驾驶室中心”；一个具备生产驾驶室竞争力的中心将在长期内成为一个非常有趣的“腿”站立，Pernilla Norman说。

从2014年1月开始Rimaster在瑞典将有位于三处的四个工厂，其中两个在Rimforsa，一个在霍恩和瑟德港，每处工厂有10000平方米总生产面积。在2013年10月，Rimaster已对行政和生产组织结构进行了调整以便更好地适应市场形势。与此同时还对瑞典的业务全面启动了“节流”计划，预计将对结构有约15MSEK的影响。 ■



Pernilla Norman

Group organization Oct2013



Rimaster Poland:

— *We are on the right track!*



— We are also “right on track”, Iwona Uszakiewicz, manager for Rimaster Poland, reports.

— Since this summer, we have seen a steady increase in sales, mainly due to more direct sales from Rimaster Poland; a result of the fact that we continuously works on tightening cooperation with many of or primary customers.

— Part of the reason is that we got a transfer from Sweden of customer responsibility, including production as well as direct sales for certain customers. Now, we can approach our customers in a more efficient, less time-consuming way, going directly from Poland to them, not having to “check” with Rimforsa.

— In addition, we have now established our own capacity in an engineering department, hired engineers and allowing them to focus on production processes, thus separating them from calculation process. Furthermore, we have invested in our administration as well, where we have a new position appointed; a “controller function” has been initiated.

— The idea of that is to have a better, more “hands-on” understanding of say material price changes, stock evaluation, and to follow up and evaluate results compared to calculations and budget.

— Talking about staff, it is obviously so that increasing sales affects employment — we have increased the workforce so at the moment, we are 314 employees in Rimaster Poland, distributed between two units; Borne Sulinowo and Czaplinek.

— Noteworthy might also be that we over the last few months, we have begun to use our Rimaster’s Chinese trading company to source original components to very competitive prices.

— For the near future, I see it important to highlight that we have installed new machinery to enhance our competitiveness; e.g. a new automatic “Cut&Strip Machine”; a Mega Strip 9650 and a plastic moulding machine, bought last year in China and adapted by our own engineers to suit our needs.

— First commercial plastic production was in November, a cable housing. In 2013, we will have produced 7 000 moulded units while we next year estimate to deliver 8 000 and in 2015 12 000 pieces.

— Furthermore, we are now to implement the 5S-method to increase not only quality control, but to focus on a higher level of quality process thinking. We will also improve production processes by establishing delivery performance measuring between our own operations and suppliers, in order to be able to continuously increase delivery performance to customers, Iwona Uszakiewicz summarizes the current status for Rimaster Poland. ■



It's full speed in Rimaster's both Polish factories.

Rimaster Stock Photography

Rimaster Poland

...我们在正确的道上!



我们的想法是对的，Rimaster Poland Iwona Uszakiewicz说道。

— 自从这个夏天开始，我们在销售上已经有很稳定的涨幅，主要是因为Rimaster Poland有更多的直接销售。因此我们需要继续工作，保持与更多客户紧密合作

我们也可以从瑞典公司转移过来的客户中受益，包括生产以及和某些客户的直接销售。如今我们可以更加有效地找到新客户群体，用较少的时间、便捷的路径供货。直接可以从波兰发货给客户，不需要通过瑞姆佛萨的检查。

— 此外，我们现已经建立了自己的团队，雇佣了工程师专注于生产工艺环节，因此可以把他们从计算工艺环节分配出来。而且我们对行政团队也很有趣，我们已经安排了一个新的职位，一个“控制功能”的职位被启动。主要是为了做得更好，有更多“帮手”了解物料价格变化，仓库估计，并跟踪估算结果，和预算做比较。

— 说到员工，很明显增加了销售额会影响就业率，我们如今已经增加了一些就业岗位。我们波兰工厂有314个员工。分两个区域，分别是Borne Sulinowo 和 Czaplinek.

— 值得注意的是我们在过去的几个月里，已经开始通过Rimaster在中国的贸易公司采购在价格上有竞争力的物料。

— 对于未来，我认为需要强调我们已经安装了新的机器来提升我们的竞争力。比如去年，中国进口的一台新的自动化切剥机，一台大型剥皮机-9650和一台注塑机让我们工程师来应用，从而满足我们的需求。

— 第一次商业化的注塑生产——

一条电线的外壳，是在11月份。在2013年，我们将完成生产7000套注塑单元，明年预计发8000套，而在2015年增长到12000套。

— 而且我们现在开始实施了5S管理模式，不仅提高了质量控制，而且还关注于高水平的生产现场管理理念。为提高更好的供货表现，我司制定了供货衡量标准来衡量我们的工人和供应商。 ■



Rimaster在波兰的两个工厂全速发展。

图片

Rimaster Belgium:

— *The Sky is The Limit!*

– Rimaster Benelux was officially established in October 2010, and has now been in operation for three years. With a clear view of where to go, Rimaster Benelux has taken some major steps to be where we are today.

– One of the most important steps was the opening at the end of 2012 of our new office and storage building in Heusden – Zolde, some 80 kms east of Brussels. In parallel, we implemented “Monitor” as our new MRP system in order to enhance our ability to serve our customers.

Thanks to close cooperation with customers we have been able to prove our capabilities in quality as well as delivery performance. Another achievement was when we were trusted with “Direct-On-Line” deliveries for Atlas Copco Belgium. In 2012 we developed a very close cooperation as a preferred supplier for Atlas Copco Portable Energy Division.

Another very interesting customer is Luminex, with whom we were able to sign a contract in 2013 for deliveries of GigaCore High-End Ethernet Switches. Meeting industrial standards, these switches, built in Söderhamn, are dedicated for the most demanding lighting and AV installations, making the product a hard environment friendly device with all configurations done through a industry oriented web interface. Choosing Rimaster for the production is a quality approval we are very proud of. Furthermore, we are proving ourselves as system integrator in this very competitive market segment in Belgium.

As for 2014, we will focus ourselves also on positioning Rimaster on the market in the Netherlands. We are looking forward to a prosperous future, and, being part of the Rimaster Group, literally see that “The sky is the limit!” ■



*“...Rimaster Benelux
has taken some major
steps to be where
we are today.”*



For the Belgian company Luminex, Rimaster Söderhamn produces several types of GigaCore switches, including the GigaCore 12 shown by Björn Krantz.

Rimaster Belgium:

天空是极限

瑞马斯特 比利时——三年
总经理Jean-Pierre Vanheel总结道。



Rimaster Benelux正式成立于2010年10月,目前已运营了三年。为了理清发展方向,Rimaster Benelux有时会停下脚步来思考今天。

最重要的决定之一是在2012年底在布鲁塞尔以东80公里的赫斯登——左尔德开设了我们的新办公室和仓储大楼。同时,为了提升为客户服务的能力,我们把“Monitor”作为我们的新MRP系统。

一方面,与客户密切合作,我们在产品的质量和交期上有了更好的表现。另一方面,我们和阿特拉斯·科普柯比利达成了“直接线上”交易。2012年,作为阿特拉斯·科普柯便携式能源部门首选供应商,我们不断发展与之合作。

另一个非常有趣的客户是Luminex,我们和他签约,在2013年交付GigaCore高端以太网交换机。为达到工业标准,建于瑟德港的转换器,是最苛刻的照明和AV专用设施,产品必须环保,而且所有配置都需要通过行业网页界面。选择瑞马斯特生产意味着高品质,对此我们深感自豪。此外,也证明了在比利时,这竞争激烈的细分市场,我们是系统的集成者。

至于2014年,Rimaster将着眼于在荷兰市场。我们期待一个繁荣的未来,而且,作为Rimaster集团的一部分,意味着“永无止境”!

为了理清发展方向,
Rimaster Benelux
有时会停下脚步来
思考今天。



Rimaster瑟德港为比利时公司Luminex生产若干类型GigaCore开关,包括Bjorn Krantz展示的。



Rimaster Sweden:

– BT Battery Cable Programme: Full speed ahead!

– Rimforsa工厂电池线束的全速生产!

Last spring Rimaster signed a comprehensive delivery and cooperation deal with Toyota Material Handling, covering development and production of battery cables and associated equipment for BT Trucks. Lars Karlborg is project manager for the battery cable production.

Lars, how was the set up, could you start production as planned?

– No, not really as we had our fair share of problems or at least difficulties. The start of production was delayed and workload was for a period quite intense. In retrospect, one might describe it as sometimes sort of chaos, albeit a controlled one.

It sounds like you had serious problems...?

– Well, I would rather not say "serious", as we were in control, but there were many pieces that had to come in to place in a very short time span.

– We would for instance have to learn a new manufacturing process that was ultrasonic welding, which we had not been doing before. Moreover, we would now start immediately with volume production, which means a different production for Rimaster compared to what we were used to, from sourcing to delivery.

– In addition to this we took in new staff that were to be trained in just two weeks, meaning we literally tripped on each other's toes as we tripled the staff and in the midst of the build up process started working two shifts.

A controlled chaos then, you said?

– Yes, for a while it was. We also had to face the fact that not all the new machines and other essential equipment arrived on time. The plan was to finish with the production preparations and training of staff in the early summer, in order to be able to start deliveries in August. When everything got delayed, we had to call in staff during our holiday period, to familiarize and train on the new equipment.

– There were moments when the building, which was under renovation, was filled with material that was delivered, machinery and other equipment that was to be installed and staff that was under training – and from all this, we were in parallel to build a smooth production flow, says Lars.

And now, how are things today?

– Oh, now we are fine, Lars says with a smile.

– All that mess we had at the start is already forgotten, as we now are going from strength to strength. We are now running according to plan and tripled sales and deliveries on the battery cable side in September compared to August and in October by 5 times compared to August. I think that clearly shows that we now are right on track.

– Finally, I wish to highlight that without the patience, dedication and skill shown by all staff, this had not been feasible, showing clearly that our staff, as always, is Rimaster's most valuable resource!

So, everything is fine now, with no remaining problems then?

– I have to admit there is one, Lars Karlborg says smiling. We are still missing our coffee machine. A Swedish workplace without a coffee machine, that's a serious problem! ■

BT电池线束项目-更新: 上个春季, Rimaster和Toyota Material Handling 签署了一份广泛的供应和协议的协议, 此项目是关于BT Truck的盖子开发和电池线生产及整套设备。

Lars Karlborg, 你是电池线生产的项目经理, 你是如何安排的? 是否可以按计划启动生产?

– 说实话, 我们有问题, 至少有些困难。起初, 生产是被推迟, 工作量一度紧张。事后看来, 这个可能是一种混乱, 尽管这事已经被控制住了。

听起来你们有过很严重的问题?

– 没有, 我到不认为是“严重”, 因为那事被控制住了, 只不过那段时间, 事情接二连三地发生。

– 比如我们必须学习一种新的生产工艺, 叫超声波焊接, 这种焊接对我们来说是新鲜事物, 我们从来没有接触过。而且要求我们立即在量生产线上启用, 这工艺和以前的工艺可是大相径庭的。

除此外, 我们会给新来的员工做两周时间的培训, 这意味着我们需要逐个逐个给他们培训工艺。你说是一个被控制住了的混乱现象?

– 是的, 暂时是这样的。我们也必须面对这个事实, 不是所有的新机器和其它重要的机器都能

够准时到达。计划旨在初夏时完成生产准备和员工培训, 为了能做到在八月份开始发货。当所有事情被延迟的时候, 我们必须要把在休假的工人召来培训和熟悉新机器的使用。

那么, 现在事情进展得如何?

– 一切顺利, Lars 微笑着回答。

– 所有的混乱已经过去, 我们现在要抓紧, 我们正在进行和时间赛跑, 尽力在完成电池线束9月供货计划, 和8月相比, 10月份已经翻了5翻, 我觉得我们正在正确的道路上。

– 最后, 我想强调如果没有耐心、献身精神和良好的技术, 我们无法取得现在的成果。所以这可以说明我们的员工永远是Rimaster宝贵的财富。没有员工的辛勤努力也没有Rimaster的今天。

所以现在都很高兴而没有任何什么问题遗留下来?

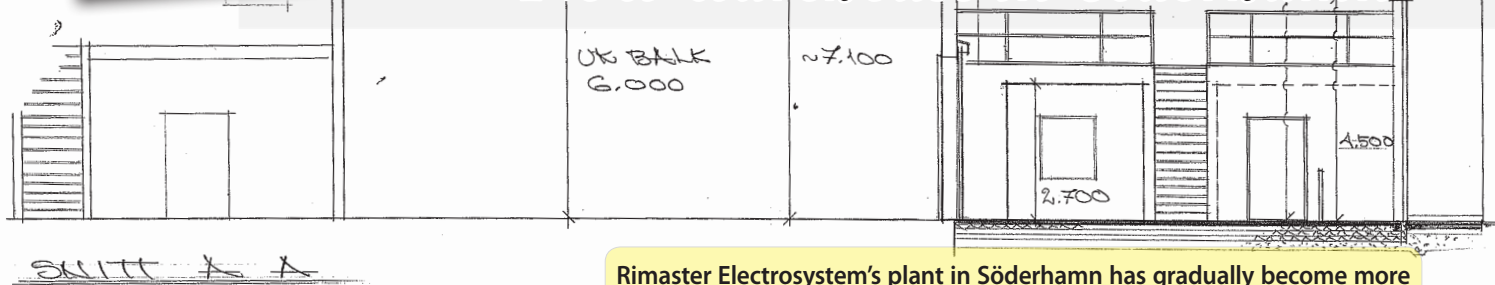
– 我必须承认一点的是, Lars Karlborg 微笑着说, 我们仍然缺一个咖啡机。在瑞典的工作室没有咖啡机是多么严重的问题! ■





Rimaster expands

— New warehouse in Söderhamn



Rimaster Electrosystem's plant in Söderhamn has gradually become more and more "squeezed" as increasing production volumes requires additional warehouse space, both for incoming supplies as well as outgoing goods. Hence, the Söderhamn warehouse has over the years been something of a bottleneck, not allowing a fully efficient logistic flow of goods.

To overcome this, the Rimaster Board has signed a deal with the owner of the factory building, Regenten Fastighets AB, to increase the warehouse floor space by building an extension, covering an additional 165 m². The extension will, apart from ample space for handling goods, also contain primary storage area, a garage and charge station for trucks as well as a room for braiding equipment. Total investment is approximately 2 MSEK, and erection of the building will start early 2014.

Rimaster Söderhamn

— 扩展瑟德港设施

Rimaster Electrosystem的在瑟德港的工厂已逐渐拥挤，持续提高的产量需要额外的仓储空间，无论是来料还是出货。因此，瑟德港仓库多年来一直是瓶颈，无法形成充分高效的物流流程。

为了克服这一点，Rimaster董事会与工厂业主Regenten Fastighets AB公司签订了一项协议，通过扩建165平方米来增加仓库面积。扩建的部分除了将有足够的空间用于处理物品，也包含主存储区，一个车库和卡车的充电站，以及一个编织设备所需的房间。项目总投资约2百万瑞典克朗，此项目将在2014年年初开始。

- Here, says Hasse Olsson, one of the warehouse managers in Söderhamn, is where we're going to get more and much needed storage space when the expansion is in place.

Hasse Olsson, 瑟德港的一位仓库经理说，这里就是扩建时我们能得到更多所需空间的地方！

