

## 一往直前 Keep on Going



亲爱的读者们,

在这期"密封工艺"里,我们再次为您准备了内容广泛而又丰富的信息资源。再仔细看,你会在大部分的主题中发现它们都可以追溯到一个共同点一持续性!

在一个环境中,我们会受到创新、发展和动态的影响,但依旧要做到保持持续在科技的最高领域,分明是一次次的挑战。我们坚信,在这方面我们成功地做到了。在此,就通过下文来引证它。

随着在亚洲第一台数控设备SML500e的安装工作,我们就着手公司的扩建工作和加强与马来西亚柔佛洲水利工程密封技术私人有限公司(Hydro Sealing Technology Sdn Bhd)— (我们的一个长期而可靠的合作伙伴)的合作工作。这是一个有意思又充满活力的公司。我们将在下文很乐意地为您介绍该企业。

很自然,我们会为自己最新的成功之作 — SML500e感到自豪。原因当然不是仅仅因为它良好的销售业绩和展览会上积极、令人欣慰的反馈。

在我们大力为SML500e做宣传的同时,理所当然地也继续供应其它型号的SML数控设备,并深受广大客户欢迎。一个提示:曾久经考验的设备并不一定马上要用新的来替换它。因为我们现有的设备装置可定制相应的更新措施,对设备的部件进行改进,使之达到最新的技术状态。而这往往是比较简便又实惠的方法。

我们选择能经受得起质量考验的工料,在不阻碍持续发展的研发工作以及反复的测试工作等的前提条件下,续而才非常谨慎、仔细地对工料进行改进工作。所以不单是作为用户的您,还有您的客户都可以绝对信任我们有着十几年的全球性经验和佐证的产品。若还有用户想进一步了解情况以求踏实感,那么我们举个更具体的例子:我们的工料聚氨酯迄今的生产总量已超过1000吨,并被加工成各种密封件和其它部件。

"持续性"原则不但被实施于产品质量方面上,在人事事项这一方面,我们也是始终贯彻这一准则。借此机会,请允许我充满自豪地向您们介绍公司里一部分的员工 — 那些在Seal Maker已长达十多年,还一直精力充沛地坚守他们的岗位,并在迅速发展的公司里为人员的稳定性悉心安排事宜的员工们。

奧地利有一句谚语叫做"一燕不成夏"。可以这么广义地说,一次参展的本身并不能保证我们持久的成功。2009年4月份我们在德国汉诺威参加了第一届大型博览会。此后,我们也因此相应地更积极参与展会了。同样,将来我们还会跻身于全球最重要的贸易展会。为您在当地提供服务。续2009年的汉诺威和孟买展会之后,我们9月份又刚刚从莫斯科的展会成功地凯旋而归。在这方面我们将继续发扬光大。带着兴奋,我们期待着即将临近的上海和拉斯维加斯的展览会。在此,我挚诚地邀请您来参观我们的展会。

祝您阅读愉快!

您的

Johann Glocknitzer

Dear readers.

this new edition of "SEALS technology" deals again with a wide variety of subjects. However, you will note that they all have one theme in common: continuity!

Maintaining continuity constitutes a recurring challenge in a sector marked by constant innovation, growth and change. We are convinced that we have been very successful thus far. But of course we want to prove it yet again with this edition's articles.

With the installation of the first SML 500e in Asia, we have further increased and intensified our cooperation with a long standing and reliable partner – Hydro Sealing Technology in Johor/Malaysia. Hereafter we will introduce you to this interesting and dynamic company.

We can be, and are, very proud of our newest creation, the SML 500e – not least because of the good sales figures and the positive feedback we have received at the trade shows.

Despite our current advertising for the SML 500e, all other machine models are still available and still in demand with our customers. My tip: there is no need to replace existing machines with the new model. Existing installations with our machines can often be quite easily updated and upgraded to state of the art technology at little cost.

The principle of relying on tested quality also holds true for our raw materials. Our proven materials are only modified under very specific circumstances and after substantial testing, without blocking its continuous development on the other hand. You as user, as well as your customers, can therefore rely on 10 years' worth of worldwide experience and proven quality of our products. It should also be quite reassuring to know that, for instance, more than 1000 tons of our polyurethane U203 have so far been produced and put to use in the form of seals and other parts.

We strive for continuity not just in our products, but also in personnel matters. So it is with pride that I will introduce you to some employees of ours, who have been with us for the past ten years and are thus contributing to the necessary human aspect of stability in a fast-growing company.

In Austria, we have the saying that "one swallow does not make a summer". In our case, this means that attending a trade show is in itself no guarantee for any success. As a consequence we are continuing what we started in March 2009 with our presence at the Hannover Fair. We will continue to attend the world's most important trade shows for your benefit. After Hannover and Mumbai in 2009, we have just come back from a successful show in September in Moscow. And things don't stop there, either! We are looking forward to attending the industrial fairs in Shanghai and Las Vegas with great excitement. Of course you are cordially invited to come visit us at any of these shows!

Until then, enjoy this new edition of our newsletter!

Yours,

Johann Glocknitzer



### House of Seals

重大的事件往往都是发生在一个小的环节里。事情也是这样的,今年的八月份,我们的服务部技术师Jürgen Bauer前往马来西亚安装一台炙手崭新的SML500e数控车削设备,那不是随意一台设备,而是第一台在亚洲投入使用的SML500e,那应该是一出小的首映。

从2005年开始,马来西亚柔佛洲的 Hydro Sealing Technology Sdn Bhd就是我们的一位忠诚的客户,而SML500e也正是在那里执行它的任务。总经理Ghui Hoi Wan回忆说:"五年前我们买了一台SML260设备,而这一做法的关键原因有几个。首先是因为:我们希望给自己客户提供的标准规格密封件有一个具有竞争力的价格。其次的原因是:为了储备齐全各种规格的产品,我们的库存量也相应地持续上升,从另一个角度上说,这也导致了我们成本的增加。因此,我们需要寻求一种更好的解决方案。第三个原因是:解决、避免客户在紧急情况下为一个重要的零部件(比如:一个特殊尺寸的密封件)而焦急等待送货的问题。正是Seal Maker的SML设备使我们有能力把这些问题一次性地解决了。从此,我们也更能适应和驾驭迅速变化的市场需求"。

对于新添的SML500e设备的投入使用,Hydro Sealing Technology的期望很高,Wan先生非常有信心地表示: "我们将来也能更迅速地供发货,同时也能自己即时生产那些规格大的密封件了"。

13年来,Hydro Sealing Technology在马来西亚的密封界一直是一家强大的企业。于1997年成立,并由Mr.Ghui Hoi Wan和Mr.K.W.Lay俩位董事长携手经营。经营形式包括: 批发、零售,并拥有自己的生产车间。公司多年提倡的座右铭"成为所有密封需求者的中心站"促使公司成为一个拥有大量忠诚客户群的成功的密封经销商。尤其让客户觉得可贵的是: Hydro Sealing Technology一直努力致力于,迅速解决所有有关于密封技术的问题及满足客户对密封件的需求。其经营的业务范围包括: O型圈、液压和气压的标准密封件、特殊密封件和机械密封件,等等。

获悉更多有关马来西亚柔佛洲 Hydro Sealing Technology Sdn Bhd, House of Seals的信息。请登录: www.hydro.com.my

Great things often start with small steps. This also held true this August, when our technician Jürgen Bauer left for Malaysia, in order to install a brand new SML 500e. Not just any SML 500e, but the first one in Asia. In a sense, this constitutes a small premiere for us therefore!

Hydro Sealing Technology Sdn Bhd in Johor/Malaysia, where the SML 500e is doing its work, have been a loyal customer of Seal Maker's since 2005. "Five years ago we made the decision to purchase a SML 260", explains their Managing Director, Mr. Ghui Hoi Wan. "This was due to various reasons. One, we wanted to supply our customers with seals in standard dimensions at competitive prices. Two, we had to constantly increase the items on stock so that we could have as many products available as possible all the time. But this led to increased costs. We therefore had to look for an alternative.

Third, our customers could not wait for urgent spare parts, such as seals, in special dimensions. Seal Maker's SML machines provided us with a solution to all of these problems. As an added benefit, we since have much better control over the rapidly changing market requirements."



Tebrau Highway, leading on to Johor Bahru city centre.

Hydro Sealing Technology have big plans for the additional SML 500e. "We want to be able to reach shorter delivery times and to produce bigger seals ourselves from now on", so Mr. Wan.

Hydro Sealing Technology has played an important role in the Malaysian seals market throughout the last thirteen years. The company was founded in 1997 and has two general managers, Mr. Ghui Hoi Wan and Mr K. W. Lay. They operate a wholesale and a retail distribution as well as a production unit. Their mission statement reads "Be a one stop center for all sealing needs" and has turned the company into a very successful sealing distributor with a loyal customer base. What those customers of Hydro Sealing Technology especially like, is their desire to quickly provide solutions for all kinds of problems and requirements in the hydraulic domain. This includes O-rings as well as standard hydraulic and pneumatic seals, special customized seals, mechanical seals and much more.

For more information about the "House of Seals" of Hydro Sealing Technology Sdn Bhd in Johor/Malaysia, please go to www.hydro.com.my

#### Seal Maker 东南亚

您在东南亚从事您的事业? 对我们的产品还有疑问的地方? Jack Lim 先生和他的团队为您即时提供咨询服务!

>> +65 645 405 68 | singapore@seal-maker.com

#### **Seal Maker South East Asia**

You do business in South East Asia and have questions concerning our products?

Mr. Jack Lim and his team will gladly answer your queries locally!

>> +65 645 405 68 | singapore@seal-maker.com





工业和技术要经过持续地优化和提高性能的过程。与技术方面的进展相互对应,因此不断地研制新的密封工料也是十分必要的。藉着工料坚固、抗压和稳固的特性,再配以当今的科技,我们是绝对有可能让新的技术理念付诸实施。但是哪些新的工料能合适于眼前各种不同订单的不同要求?如何能确保这些新产品被顺利地进行取代工作呢?在下期的"密封工艺"里我们将向您讲解正确选择合适工料的关键要点,并向您介绍Seal Maker的各种产品及它们适宜的使用范围。

近年来,材料科学界在密封技术领域研制了许多具有创新性的新产品,并在实践中得出了这样一个重要的规则:一个性能稳定、可靠的密封件是与截面、工料的正确选择和搭配是分不开的。

目前市场上提供各种不同名称和标志的工料。鉴于大量材料不同的 参数、规格和工业规范,很难对它们进行统一地概要,但为了能正 确判断不同工料的质量,比较、分辨各种材料的属性,我们有必 要对规格化的测试程序和计量单位进行阐明。

在密封技术中,最常被使用的材料分类为: 合成橡胶 (弹性) 和塑性体 (刚性)

Industry and technology are caught in a continuous process of optimization and performance enhancement. This technological progress also requires constant improvement of existing and development of new materials for sealing applications. Today it has become possible to implement innovative technical concepts by means of more robust, sturdier and more durable materials. But which of these new materials complies with the given requirements of the existing order, who can guarantee the flawless realization of new developments? In the following issues of "SEALS technology", the most important aspects of the selection of the best suitable materials will be highlighted, and the various Seal Maker products and their appropriate applications explained.

Over the last few years, materials science has led to the creation of numerous innovations in seals technology. The simple "rule of thumb" for the application side is always "The operational reliability of a seal results from properly selecting the best combination of the most suitable seal profile and the appropriate material."

Meanwhile, different materials with as many different names and labellings are available in the market. In order to evaluate the material quality and to compare the properties of different materials, it was necessary to define standardized test procedures and units of measurement. Nevertheless, it is very difficult to keep a clear overview with this bulk of different materials, classification numbers and industrial standards.

In seal technology the most frequently used groups of materials can be classified as either elastic – the Elastomers, or rigid – the Plastomers.



#### 合成橡胶

合成橡胶是交联聚合物。有保持持续弹性的物理性能。这是什么意思呢?

合成橡胶能保持它们的原始形状。也就是说,变形的状态是可逆性的暂时现象,解除压力后,它们会又重新返回初始的状态。聚氨酯和橡胶都属于此类的材料。橡胶工料是由基聚合物组成,基聚合物和交联剂在一个所谓的化硫过程中化合。根据选择不同的交联体系和填料,材料的力学性能(如:硬度和拉张强度)可以借此得以控制。

Seal Maker生产并销售的工料和密封件使用的聚合物品种有:聚氨酯,丁晴橡胶、氢化丁晴橡胶、三元乙丙橡胶、氟橡胶、FEPM和硅酮。并根据特殊的应用领域匹配不同的材料。如:供应适合与食品直接接触的工料。

#### 塑性体

塑性体不是交联超高分子量的聚合物。压力和温度会使它们发生永久性变形。它们只 微具弹性性质。因此主要适用于支撑和导向元件。

Seal Maker 塑性体的标准规格的品种有:聚四氟乙烯、聚甲醛、聚酰胺和聚醚醚酮。

在下一期的季刊里请您关注各种材料不同的测试进程事项!

您若有疑问,或对该系列文章"最好的密封"在编辑和主题内容上有任何建议,请不要犹豫向我们附上您的反馈。我们期待您的积极参与。

>> m.gossmann@seal-maker.com

#### Elastomere

Elastomers are cross-linked Polymers, characterized by permanent elasticity. Well, what does this mean?

Elastomers are capable of memorizing their original shape, which means that any deformation they undergo is reversible. After removing the physical load, they return to their original state. Polyurethanes and Rubbers belong, among others, to this group. Rubber materials consist of a base polymer which is chemically linked in a vulcanization process through the addition of cross-linking (curing) agents. Depending on the selected curing system and the added filler materials, mechanical properties such as hardness or tensile strength can be modified.

Seal Maker produces and distributes semi-finished material billets and seals of the polymers PU, NBR, HNBR, EPDM, FPM, FEPM and Silicone. These are available in various qualities for a number of special applications, such as for use with foodstuffs.

#### **Plastomere**

Plastomers are polymers with high molecular weight and without cross linkage. Under pressure and elevated temperature they can be shaped into different forms, which they maintain permanently. Their soft, elastic properties are very low, for which reason they are mainly used for back up and guide rings

The plastomers PTFE, POM, PA and PEEK are a part of Seal Maker's standard range of materials.

In the next issue you will read about various test procedures for materials! In case you have any questions, suggestions for topics, or ideas for the configuration of this article series "Best of Seals", please do not hesitate to give us your feedback. We are looking forward to your active participation!

>> m.gossmann@seal-maker.com



# 密封解决方案 Sealing Solutions

复杂的任务、棘手的系统要求、制定适合个人需求的密封解决方案。关于此类 的疑难问题,我们Seal Maker 销售部非常乐意为您提供咨询。内务主管Haspel 先生说道: "研制特殊的密封件是我们的核心职能之一"。

那些被传送到客服部的疑难问题,其中50%都是涉及到棘手的,需要反复推敲、 深思熟虑的特殊密封件的生产。它们几乎和那些"正常"的标准液压密封件已不 相干了。

在这种特殊的情况下, 我们有时还需要在短期时间内完成任务。根据客户要求, 我们也在周末生产迫切、急需的零配件。贵重的物品也配得上高贵的接送服务。 "有些日子里,我们Seal Maker的包裹还非常豪华地让奔驰车直接运送机场 " Haspel 先生带着微笑继续说道: "艰巨的任务会让我们的工作更令人振奋、 充满活力。最令人欣慰的是,当我们为一份复杂的密封件订单找到了合适的解 决方案, 而客户又为我们的工作感到满意"。

我们营销部的日常时事并不是单调地例行公事,内容是及其多样的。提供报价 单、订单的管理、物流、会计、特别是客户服务, 让我们员工的工作流程得到 了充分的调剂。当然,我们Seal Maker非常重视为客户提供关于密封件的专业 建议和指导工作。帮助客户迅速制定正确、合适的密封解决方案是我们首要的 目标之一。

Complicated tasks, finicky requirements, customized solutions - such kind of inquiries are very welcome in Seal Maker's internal sales department. "Carrying out purpose-built designs is our core competence", says department manager Alexander Haspel.

50% of all sealing problems brought to the knowledge of the Seal Maker customer service have nothing to do any more with the "normal" standard seals for hydraulic applications. Information on special and often very tricky designs are in much higher demand.

As the case arises, special orders need to be carried out very quickly. If required, urgently needed spares are also produced on weekends. Such valuable freight also deserves an adequate shuttle service. "Occasionally, small Seal Maker parcels are delivered to the airport in a Mercedes taxi," explains Mr. Haspel with a big smile, and adds: "it is specifically the challenging tasks that make our job so interesting and thrilling. It is simply rewarding to see that the customer is happy with the solution we have developed for a complicated seal inquiry."

The day-to-day business in the internal sales department is very varied and prevents the job from turning into a monotonous routine. Quotations, order administration, logistics, accounting and mainly customer service offer a lot of variety for our staff. The main focus, of course, remains on the competent advice to be offered by Seal Maker's seal specialists. The main objective is to help the customer find the best possible solution for their sealing problem as quickly as



sealing solutions and your orders.

Mr. Alexander Haspel and his team will gladly advise you.



## 长久的关系 Long Lasting Relationships

不仅许多客户是我们Seal Maker 多年来的忠诚客户,而且有些员工也是十几年来一直在我司坚守岗位。他们亲身经历了Seal Maker 的发展史。在此,我们向那些与我们多年相伴、同心戮力、共同策划公司发展纲领的员工们表示衷心的感谢。

Susanne Heuduschits 1998年的3月份Heuduschits女士在我司应聘担任秘书职位。当时我们团队一共有5名人员。从一名秘书开始,她先后在会计部、客服部、采购部、营销部、生产管理部门、电子数据处理部和市场销售部担任职务。如今,她正致力于管理和优化ERP系统,是公司的一精英。

Ernst Hodomszky 具备了CNC数控车床和FANUC 控制舱操作的知识与经验,于1998年加入我们的队伍。他丰厚的操作经验和专业知识,为我司第一台SML数控设备的研发起了不可忽视的推动作用。不仅因为他通情达理的性格,还有他的专业特长,都使他被同事们一致认同,并赴任了CNC数控设备生产组的组长职位。

Michaela Kisela 于1999扩充了Seal Maker这支年轻的队伍。最初她是一位经办员,后来担任首席秘书,并在采购和销售部任职。她说: "Seal Maker 给我们提供了机会,从一个全面的能手发展成为专家,随着岗位的轮换,我们在个个领域获悉多方的知识,也更能准确地判断个人所长,并更好地发挥它。"

Horst Kummer 从1999年开始,除了CNC数控设备部以外,Horst先生先后在其它所有的生产部门轮流就职。"在初始阶段,我们都必须自己去琢磨、去研究工作上碰到的各种疑难问题。但是,现在新来的员工可以受益于我们曾经做过的开拓工作。我们可以帮他们指点迷津并传授经验和诀窍于他们",Horst 先生强调说。当前,优化工作流程是他最重要的主要职能之一。

Miklos Stöckert 于2000年进入Seal Maker。当时,生产车间还设在Eisenstadt。那寒冬的感觉Miklos先生还记忆犹新,说道: "那时的车间昏暗,冬天只有5摄氏度,没有供暖设施,如今,我们的工作环境十分优越,我对公司的继续发展并成为全球性的主导者非常有信心"。

Martin Süss 也是在2000年开始了他在Seal Maker的职业生涯。最初在Eisenstadt,还是一名数控车削工。2005年,他被荣升为生产和销售部的经理。在工作的同时,他利用业余时间在Wiener Neustadt高校进修,并获得了经济工程学士学位。对于公司的发展,他说道:"我希望Seal Maker再添几百名员工,并在密封技术行业取得国际市场领导的地位,在此,我向所有与我齐心同力工作的同事们表示感谢"。

Not only customers have remained loyal to Seal Maker over the years. Some of our staff members, too, have been with us for more than 10 years. They have experienced first hand the very beginnings of Seal Maker. For their companionship over the years, their personal engagement and their will to contribute to the growth of our company, we wish to express our sincere gratitude to those employees:

Susanne Heuduschits applied for a secretarial job in March 1998 – and thus increased the number of staff up to five people. From part time to full time employment, she moved on from being a secretary to becoming an equally knowledgeable employee in customer care, accounting, purchasing and sales, in production planning as well as IT and marketing. Nowadays she is in charge of the administration and optimization of our ERP-system.

Ernst Hodomszky was already well versed in CNC machining and Fanuc controls back in 1998. His know-how in these domains was extremely helpful in the design of the first SML machine. He is highly regarded by his colleagues as much for his human values as for his skills and as head of the CNC production department.

Michaela Kisela joined the young Seal Maker team in 1999, first as office assistant, then as personal assistant and member of the internal sales team, in purchasing and sales. "Seal Maker offers the opportunity to step up from being an allrounder to becoming an expert", so Michaela. "Job rotation gives you valuable insight into a number of areas. You discover where your personal strengths lie and can then develop these further."



左起 from I to r: Miklos Stöckert, Horst Kummer, Susanne Heuduschits, Martin Süss 无图 Not shown: Michaela Kisela, Ernst Hodomszky

Horst Kummer has worked in all areas of production, with the exception of the CNC department, since September 1999. "In the early days we had to learn everything on our own. Nowadays, the young employees can benefit from the pioneering work we did back then. They receive all the necessary training and knowledge from us internally", says Horst Kummer. The optimization of work flows is now one of his most important duties.

Miklos Stöckert joined Seal Maker in the Millennium year 2000, when the production was still located in Eisenstadt. His most vivid memories of the early days are of the cold winters. "The workshop was dark, there was no heating and winter temperatures were down to 5 degrees", explains Miklos Stöckert. "Today, our modern work place is spacious, well lit – the working conditions are very good. I see the development of our company to the global player we now are as something very positive", adds Mr Stöckert.

Martin Süss also started his career in 2000 – as CNC operator in Eisenstadt. Since 2005 he's our production and plant manager, and has just graduated this year from the technical college in Wiener Neustadt with a Bachelor in industrial engineering as a part-time student. His wish for the company's future: "I would want for Seal Maker to have a few hundred employees more and be the global leader in seal technology, and would like to thank our staff for the excellent team work and cooperation over the years."



# 在莫斯科的成功Industrial Trade Fair Moscow

今年的九月份在莫斯科举行了第一次动力、传动和自动化的贸易展览会。Seal Maker 在此次展会上取得了很大的成功。随着我们给SML500e设备进行的演示,全场的业内观众都被它深深信服。这次Seal Maker 团队的出行,不只是去收集大量的客户反馈,我们的团队更是带着些许设备的订单凯旋而归。尽管参观的人士蜂拥而至,我们团队的顾问们还是对面前的客户们进行耐心的讲解,提供最好的建议,交流经验,满足需求和接收建议。我们感谢所有在莫斯科展会上光顾我们展台的客户,并期待我们能在Pöttelsdorf或在即将到来的上海贸易展览会和拉斯维加斯的贸易展览会上见到您。





This September, the exhibition "Motion, Drive & Automation" was held in Moscow for the very first time – an event which would also turn into a big success for Seal Maker. The presentation of the SML 500e machine made a very convincing impression on all the visitors at the Seal Maker booth. As a result, our exhibition team returned home not just with lots of valuable customer feedback, but also with a number of orders for machines. Despite a huge turnout at the Seal Maker stand, our staff took the time to fully answer the questions of existing customers, exchange knowledge and take on requests and suggestions. We would like to thank all the guests who visited us in Moscow and look forward to seeing them again soon, either in Poettelsdorf or during our next shows in Shanghai and Las Vegas!

### 向创新迈步Moving Innovation Forward

"向创新迈步"这不但是2011年拉斯维加斯展会的的座右铭,我们Seal Maker 也引用此箴言为动力。以便在接下来的动力传动与控制技术的国际性的展览会上向您展示我们的产品,我们期待在即将到来的上海亚洲动力展PTC Asia和拉斯维加斯IFPE展会上,在我们的展台里亲自向您问候!

This is not just the official motto for the IFPE 2011 in Las Vegas. Seal Maker has also taken it on board as a principle, in order to continue presenting our products to you at the world's top exhibitions for drive systems and fluid power technology. We look forward to welcoming you at our stand at the upcoming PTC Asia in Shanghai or the IFPE in Las Vegas!





PTC 亚洲国际动力传动博览会(上海)

时间: 2010年10月25-28日

地点:上海新国际博览中心(SNIEC)

信息: www.ptc-asia.com

门票预定,展览会的详细信息 >> marketing@seal-maker.com

#### PTC Asia in Shanghai

When: 25.10. – 28.10.2010

Where: Shanghai New International Expo Centre (SNIEC)

Info: www.ptc-asia.com

Ticket reservations & further exhibition information >>

marketing@seal-maker.com



IFPE 拉斯维加斯国际动力传动博览会

时间: 2011年3月22-26日 地点: 拉斯维加斯会议中心 信息: www.ifpe.com

门票预定,展览会的详细信息 >> marketing@seal-maker.com

#### **IFPE Las Vegas**

When: 22.3. - 26.3.2011

Where: Las Vegas Convention Center

Info: www.ifpe.com

Ticket reservations & further exhibition information >>

marketing@seal-maker.com