

SEALS

TECHNOLOGY



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Magazine for customers and partners | 客户杂志

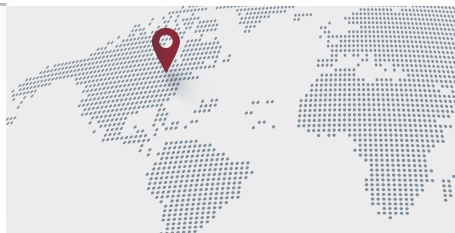


Between
TRADITION &
INNOVATION

Green Revolution



Global Spotlight



State of the Art Technology





EDITORIAL

Dear readers,

in a world where environmental and social issues are becoming more and more important, we are also getting increasingly aware of the significance of a sustainable future worth of living. Even if we are facing various challenges, from environmental change to global developments, there are still many reasons for optimism.

Business and politics are increasingly looking for creative and innovative solutions to promote positive changes. It is obvious that each individual and also we as a community play an important role. With the idea that "we have the power to bring about change", we have the opportunity to actively contribute to a better future. It is a common task that we can tackle with confidence and determination in order to leave a world full of opportunities for future generations.

In 2020 Seal Maker received the ISO 14001 environmental certificate, which guarantees the company's commitment to sustainable development and environmental responsibility. The implementation of concrete measures to protect the environment and resources is already part of our comprehensive management system. We are aware of our responsibility and want to take over our part in ensuring the future quality of life.

An important factor of these efforts and also a core project is our photovoltaic system, which was already built in 2021 and will be expanded by 232 kWp and 530 modules later this year. Once completed, Seal Maker will cover around one third of its annual electricity consumption through photovoltaics. Sustainability, environmental protection and resource conservation are as well important aspects in many other areas.

While some topics between young and old are being discussed and evaluated even in our management, there is always a common understanding on the subject of environmental protection. An interview with Christina and myself gives insights into the respectful and successful cooperation in our family business.

Continuing our *EXPLAINED* series, this issue is dealing with a number of technical terms from the world of seals, explained in a simple and understandable way. We are also continuing our *Out Of Limits* series in this issue with a *Special Industry Project* in Mexico. In addition, we report on some interesting innovations in the field of *SML machines*, which will further facilitate the application for our customers.

I hope that you will also find one or the other interesting article in this issue of our *SEALS Technology* and wish you a lot of fun reading it! Enjoy the upcoming summer!

Yours,

Johann Glocknitzer

尊敬的读者们，

在环境和社会问题日益严峻的今天，我们也越来越意识到一个可持续、宜居的未来是多么的重要。尽管我们面临着各种挑战，从环境变化到全球发展，但仍然有许多理由保持乐观。

企业和政界正在越来越多地寻求具有创造性和创新的解决方案，以促进积极的变化。显然，每个人和我们作为一个团体都发挥着重要的作用。带着“我们有能力带来改变”的想法，我们有机会积极为一个更美好的未来做出贡献。这是一项共同的任务，我们可以充满信心 and 决心去完成它，为后代留下一个充满机会的世界。

在 2020 年 Seal Maker 取得了 ISO 14001 环境认证，这证明了公司对可持续发展和环保责任的承诺。落实具体的环境和资源保护措施已经成为我们全面管理体系的一部分。我们意识到自己的责任，并愿意为确保未来生活质量承担应有的责任。

在这些努力中，一个重要的核心项目是我们的光伏系统，该系统早在 2021 年就已建成，并将在今年晚些时候扩建 232 千瓦峰 (kWp) 和 530 个模块。建成后，Seal Maker 将通过光伏发电满足其每年约三分之一的电力消耗。可持续性、环境保护和资源节约也是许多其他领域的重要方面。

在我们公司的管理层中，即使是年轻一代和老一代之间，一些议题也会被讨论和评估，但在环境保护方面，我们始终有着共同的理解。Christina 和我在一次访谈中将展示我们如何在这个家族企业中互相尊重并成功合作。

本期杂志将继续介绍“解密”系列专题，本期我们用通俗易懂的方式解释来自密封件领域的众多技术术语。同时，本期“超越极限”系列还将带您走进墨西哥的特殊行业项目。此外，我们还将报道一些 SML 机器领域的有趣创新，这些创新将进一步方便客户的应用。

希望您也能在这一期《密封科技》中找到您感兴趣的文章，并祝您阅读愉快！享受即将到来的夏天！

您的

约翰-格洛克尼策

Green Revolution

COMMITMENT TO THE ENVIRONMENT

In 2020, Seal Maker was awarded the ISO 14001 environmental certificate, a milestone that highlights the company's commitment to sustainable development and environmental responsibility. Since then, Seal Maker has been striving to establish clear environmental guidelines and implement concrete measures to meet its environmental commitments.

Responsibility for climate mitigation often begins with small but targeted steps. Seal Maker has focused on reducing CO2 consumption. Among the actions taken are the reduction of energy consumption and the reduction of waste. In detail, energy consumption has been reduced by optimizing the heating cycles of the tempering furnaces, lighting of the building and hot water preparation. As a result, an impressive 100,000 kWh of electricity was saved in 2022/2023 (corresponding to an annual electricity consumption of about 20 households).

EXPANSION OF THE PHOTOVOLTAIC SYSTEM

In order to further increase the use of renewable energies, Seal Maker will realize an additional expansion of the photovoltaic system. By integrating a further 232 kWp on the existing roof areas, the system output will be increased to a total of 410 kWp.

The extension comprises about 530 modules and covers a total roof area of 1055 m². Once completed, Seal Maker will cover around one third of its annual electricity consumption with photovoltaics, thereby further improving its ecological footprint.

All these efforts will be integrated into Seal Maker's comprehensive management system, which is going to be implemented gradually to meet global and social responsibilities.

对环境的承诺

2020 年，Seal Maker 获得了 ISO 14001 环境认证，这是一个里程碑式的事件，彰显了公司对可持续发展和环保责任的承诺。自那以后，Seal Maker 一直致力于制定清晰的环境准则并实施具体措施，以践行其环保承诺。

应对气候变化的责任常常始于一些微小但有针对性的举措。Seal Maker 一直专注于减少二氧化碳排放量。采取的措施包括减少能源消耗和减少废弃物。具体而言，通过优化回火炉加热周期、建筑物照明和热水制备，降低了能源消耗。2022/2023 年，公司节约了惊人的 100,000 千瓦时电量（相当于约 20 户家庭的年用电量）。

光伏系统扩建

为了进一步增加可再生能源的使用，Seal Maker 将对光伏系统进行额外的扩建。通过在现有屋顶区域增加 232 千瓦峰 (kWp) 的发电能力，系统总输出将增加到 410 千瓦峰 (kWp)。

扩建项目包括约 530 个组件，覆盖总建筑面积 1055 平方米。建成后，Seal Maker 将通过光伏发电满足其每年约三分之一的电力消耗，从而进一步改善其生态足迹。

所有这些努力都将集成到 Seal Maker 的综合管理体系中，该体系将逐步实施，以满足全球化和企业的社会责任。



Between TRADITION & INNOVATION

Johann & Christina Glocknitzer

FAMILY VALUES AS KEY FOR SUCCESS

The company's main focus is the passion for solutions for the sealing industry which has been passed down through generations. Today we are talking to the founder, Johann Glocknitzer, and his daughter, Christina Glocknitzer, who are jointly at the helm of the company and shaping its future.

Johann, since the company was founded more than 25 years ago, you have experienced many ups and downs. What was your biggest challenge?

JG: The biggest challenge was undoubtedly to navigate through the constant change of the market and of technologies. It was a continuous learning procedure, in which we had to go innovative ways without losing our basic principles and the family character of our company. Especially in critical phases, economically functional decisions had to be made from time to time, always kept in line with our corporate culture.

Christina, you've been working in the company for more than a decade now. How do you bring a breath of fresh air to the company without neglecting traditions?

CG: I see myself as a bridge between the proven past and a dynamic future. My approach is to introduce modern strategies and technologies with the entire team that optimize our processes and provide our customers with new state-of-the-art solutions. In my opinion, it is about preserving the essential values that my father has established and preparing ourselves for the upcoming demands - to unite the best of both worlds, so to speak.

A strong sense of family plays a major role in your business. How is this reflected in the team and when dealing with customers?

JG: The family spirit manifests itself in a strong cohesion and mutual respect within the team. This company culture is also transferred to our customer relationships. We attach great importance to responding individually to the needs of each and every individual, thus building long-term relationships that go beyond pure business relationships.

CG: Our goal is that both, employees and customers feel themselves as a part of the world of Seal Maker. We are convinced that personal commitment and a friendly atmosphere for all of us lead to better results and provide our customers unique added value.

Many family-owned businesses are experiencing tensions between generations. How do you manage to overcome generational conflicts and collaborate productively?

JG: Open communication and mutual respect are the key. We attach great importance to giving everyone space to express their ideas and concerns. It is important to appreciate the experiences of the older generation, but also to appreciate the new perspectives of the younger generation. This exchange not only promotes mutual understanding, but often leads even more innovative solutions.

家族价值观是成功的关键

公司核心关注点是代代相传的对密封行业解决方案的热情。今天，我们将与公司创始人 Johann Glocknitzer 和他的女儿 Christina Glocknitzer 进行对话，他们共同掌舵公司并塑造其未来。

Johann, 自公司 25 年前成立以来，您经历了许多起起伏伏。您遇到的最大挑战是什么？

JG: 毫无疑问，最大的挑战是应对市场和技术不断变化带来的挑战。这是一个持续的学习过程，我们必须不断创新，同时不能失去公司的基本原则和家族特色。尤其是在关键阶段，我们必须不时做出经济上可行的决策，始终与我们的企业文化保持一致。

Christina, 您已经在公司工作了十多年。您如何在忽视传统的情况下为公司注入新鲜活力？

CG: 我将自己视为连接过去丰功伟绩和充满活力的未来的桥梁。我的方法是与整个团队一起引入优化流程并为客户提供全新尖端解决方案。在我看来，重要的是保留我父亲建立的最基本的价值观，并为即将到来的挑战做好准备，可以说，这是将两者精华融为一体。

强大的家庭观念在您的业务发展中扮演着重要角色。这在团队合作和客户关系方面如何体现？

JG: 家族精神体现在团队内部的强凝聚力和相互尊重。这种企业文化也延续到我们的客户关系中。我们非常重视个性化地满足每个人的需求，从而建立超越单纯商业关系的长期合作伙伴关系。

CG: 我们的目标是让员工和客户都觉得自己是 Seal Maker 的一份子。我们坚信，个人奉献和友好的氛围对我们所有人来说都能带来更好的结果，并为客户提供独特的附加值。

许多家族企业都存在着代际紧张关系。您是如何克服代际冲突并卓有成效地合作的呢？

JG: 开诚布公的沟通和相互尊重是关键。我们非常重视为每个人表达想法和疑虑提供空间。重要的是要珍视老一辈的经验，同时也欣赏年轻一代的新视角。这种交流不仅促进了相互理解，而且往往会带来更具创新的解决方案。

CG: 我还想补充一点，代际合作并不是亦步亦趋地跟从前辈。而是要走自己的路，并借鉴前辈的经验作为灵感和支持。做事方式不同于过去并不意味着不欣赏过去的业绩。恰恰相反！这才是为公司进一步发展，创新和可持续发展奠定基础。

CG: I would add that intergenerational cooperation is not about following in another one's footsteps and copying him or her. Rather, it is about setting one's own path and using the predecessors' ways as inspiration and support. To do things differently than the years before is not a sign that the past performance is not appreciated. Quite the opposite! Through this a company's basis for further development, innovation and sustainability is created.

Christina, what do you think are the most important pillars of a successful company?

CG: Success is based on a clear vision and firm values that guide us. At the same time, it is crucial to remain flexible and adaptable in order to respond to market changes. Innovation is the key to always meet the needs of our customers and to maintain our lead. Equally important is a strong team culture that promotes collaboration and commitment, as our employees are at the heart of our success.

Johann, you started the company from the scratch. What advice would you give to entrepreneurs who are at the beginning of their journey?

JG: The path of an entrepreneur is rarely straightforward. My advice would be to remain resilient and believe in the vision, even when things get difficult. It is important to be flexible and adapt oneself, but without losing sight of your own values and the core of the business idea. A passion for what you do and a strong team as well as supporting network are essential.

Christina, as the next generation to lead the company, what can customers look forward to in the coming months?

CG: Innovation lies in our DNA and we have made it our mission to remain at the forefront of technological progress. Over the past few months, we have worked hard on some exciting technical innovations that will soon be revealed. Without giving too much away, I can assure that our customers may expect some thoughtful and innovative solutions that will not only surprise, but also significantly contribute to meeting their needs in an unprecedented way. Stay excited, because we are ready to raise the bar once again.

Christina, 您认为一家成功公司的最重要支柱是什么？

CG: 成功源于清晰的愿景和引领我们的坚定价值观。同时，保持灵活性和适应性以应对市场变化也至关重要。创新是始终满足客户需求和保持领先地位的关键。同样重要的一点是强大的团队文化，它能促进合作和奉献精神，因为我们的员工是成功之源。

Johann, 您白手起家创立了这家公司。您会给那些刚起步的企业家什么样的建议呢？

JG: 创业之路鲜有坦途。我的建议是保持韧性，即使事情变得困难，也要相信自己的愿景。保持灵活并适应环境很重要，但不要忽视自己的价值观和核心商业理念。对所做事业的热情、强大的团队以及支持网络都是必不可少的。

Christina, 作为公司下一代领导人，未来几个月客户可以期待什么呢？

CG: 创新根植于我们的 DNA，我们一直秉持着保持技术进步前沿。过去几个月，我们一直在努力研发一些令人兴奋的技术创新，这些创新很快将揭晓。虽然不能透露太多，但我可以向客户保证，他们可以期待一些经过深思熟虑的创新解决方案，这些解决方案不仅会令人惊喜，而且会以前所未有的方式满足他们的需求。请保持期待，因为我们准备再次突破极限。

Explained: Sealing Glossary

SEALING TOLERANCES

密封公差

These are the accepted limits for seal size variations. They are important because excessive deviations from ideal dimensions can affect sealing efficiency by either causing leakage, making assembly difficult or impossible, or remarkably reducing service life.

指密封尺寸允许的偏差范围。它们很重要，因为过大的尺寸偏差会影响密封性能，要么造成泄漏，要么使装配困难甚至无法装配，或者显著降低使用寿命。

HEEL

基座

Refers to the load-bearing surface of a seal that is pressed against a housing wall or a holding device. The effectiveness of the seal structure depends on this surface which also ensures that the seal will remain stable in place even under pressure.

指压紧在壳体壁或固定装置上的密封件的承载表面。密封结构的有效性取决于该表面，它还能确保密封件即使在压力下也能保持稳定。

CHAMFER

倒角

The meaning of a chamfer depends on where it is positioned on a sealing element. While the chamfer on the sealing edges has a strong influence on tightness, friction and hydrodynamics, the chamfer on the heel is important for the seal's stability the installation space (static side). On the dynamic side, the chamfer on the heel can be used to influence the back pumping capabilities and the inclination to gap extrusion.

倒角的含义取决于其在密封元件上的位置。密封边缘的倒角会强烈影响密封的紧密性、摩擦和流体动力学，而基座上的倒角则对密封件在安装空间（静止侧）的稳定性很重要。在动态侧，基座上的倒角可用于影响背抽能力和间隙挤出的倾向。

GROOVE

沟槽

Especially modern, dynamically used seals are often equipped with a groove on the pressurized side. While under pressure the groove transfers the forces to the sealing lips under pressure - compared to seals without a groove - friction is reduced while the sealing function is still sufficient.

尤其是现代的动态密封件，压力侧通常会配备一个沟槽。在压力下，沟槽会将压力传递到受压的密封唇 - 与没有沟槽的密封件相比 - 摩擦会减少，同时密封功能仍然足够。

BACK-UP RING

支撑环

Back-up rings are used to avoid gap extrusion. Back-up rings do not perform a sealing function, but are essential for a smooth functioning of the seal. They support the permanent and damage-free function of the sealing element by closing the sealing gap on the non-pressure side.

用于防止间隙挤出。支撑环不执行密封功能，但对于密封的平稳运行至关重要。它们通过关闭非压力侧的密封间隙来支持密封元件的持久和无损运行。

SEALING EDGE

密封边缘

The part of the seal that is in direct contact with the counter surface (rod, shaft, bore). The design of the sealing edge is decisive, because it directly influences the sealing effect and the wear resistance.

与配合表面（杆、轴、孔）直接接触的密封部分。密封边缘的设计至关重要，因为它直接影响密封效果和耐磨性。

Welcome to the current issue of *EXPLAINED*. In this glossary, Seal Maker unravels the secrets around the terms that are everyday language for professionals, but often pose puzzles for beginners. From *seal tolerances* to *groove to energizer elements*, you will find precise and comprehensible definitions to understand and optimize your knowledge on the efficiency and durability of seals.

欢迎阅读最新一期的《解密》。在本期词汇表中，Seal Maker将揭开围绕密封术语的谜团，这些术语对于专业人士来说是日常用语，但对于初学者来说往往会感到困惑。从密封公差到沟槽到增压元件，您将找到精准易懂的定义，以便于您理解和优化对密封效率和耐久性的认知。

ENERGIZER

增压元件

Energizer elements are made of different materials and perform various tasks. Especially in the case of comparatively hard materials, which do not have sufficient elasticity, they ensure that the required contact pressure is effectively distributed on the surfaces to be sealed. They are typically applied for example in so-called composite seals (see e.g. Seal Maker *RS09* or *PS08*) to permanently press the slide ring, e.g. made of filled PTFE, against the surface to be sealed. Energizer elements can also be found in seals that must function reliably even at very low pressures. Here, for example, an O-ring made of a comparatively soft elastomer is inserted into the groove of a polyurethane lip ring, which strengthens the contact force of the seal to the surface even at no or very low pressures (cf. Seal Maker *RS03*). Metal energizers (springs) for example, are as well used in PTFE lip rings (cf. Seal Maker *RS19* or *PRS19B*). In general, the energizing element or the material of which it has been made has to ensure that a chemical attack by the medium is excluded.

增压元件由不同材料制成，执行各种任务。尤其对于弹性不足的相对硬质材料，它们可以确保所需的接触压力有效地分布在待密封的表面上。例如，它们通常用于所谓的复合密封件（例如参见 Seal Maker *RS09* 或 *PS08*）中，以永久性地压紧滑动环（例如由填充聚四氟乙烯制成）贴紧待密封的表面。即使在非常低的压力下也必须可靠运行的密封件也可以找到增压元件。例如，将由相对较软的弹性体制成的 O 型圈插入聚氨酯唇形环的凹槽中，即使在没有或非非常低的压力下也能增强密封件与表面的接触力（参见 Seal Maker *RS03*）。金属增压元件（弹簧）也用于聚四氟乙烯唇形环（例如参见 Seal Maker *RS19* 或 *PRS19B*）。总而言之，增压元件或其材料必须确保避免介质的化学侵蚀。

CROSS-SECTION

横截面

This is the cross-section of a seal or the installation space (housing). The cross-section is obtained by calculating the outer diameter (OD) minus the inner diameter (ID) and dividing it by 2 - $CS=(OD-ID)/2$. Basically, a distinction is made between nominal cross-section (CSN mounting space/housing) and actual cross-section (CSA seal). While the CSN describes the dimensions of the available installation space, CSA stands for the actual design dimensions of the seal itself. The difference from CSA minus CSN then results in the seal's actual preload (excess) in relation to the installation space in order to achieve the desired sealing effect.

指密封件或安装空间（壳体）的横截面。横截面是通过计算外径（OD）减去内径（ID）并除以 2 得到的 - $CS=(OD-ID)/2$ 。基本上，横截面分为公称横截面（CSN 安装空间/壳体）和实际横截面（CSA 密封件）。CSN 描述可用安装空间的尺寸，而 CSA 代表密封件本身的实际设计尺寸。CSA 减去 CSN 的差值会产生密封件相对于安装空间的实际预紧力（过盈），以达到所需的密封效果。

$$CS = \frac{(OD - ID)}{2}$$

STATIC SEALING LIP

静态密封唇

It is located on the side of the seal firmly mounted in the installation space effecting little relative movement between the seal and the component.

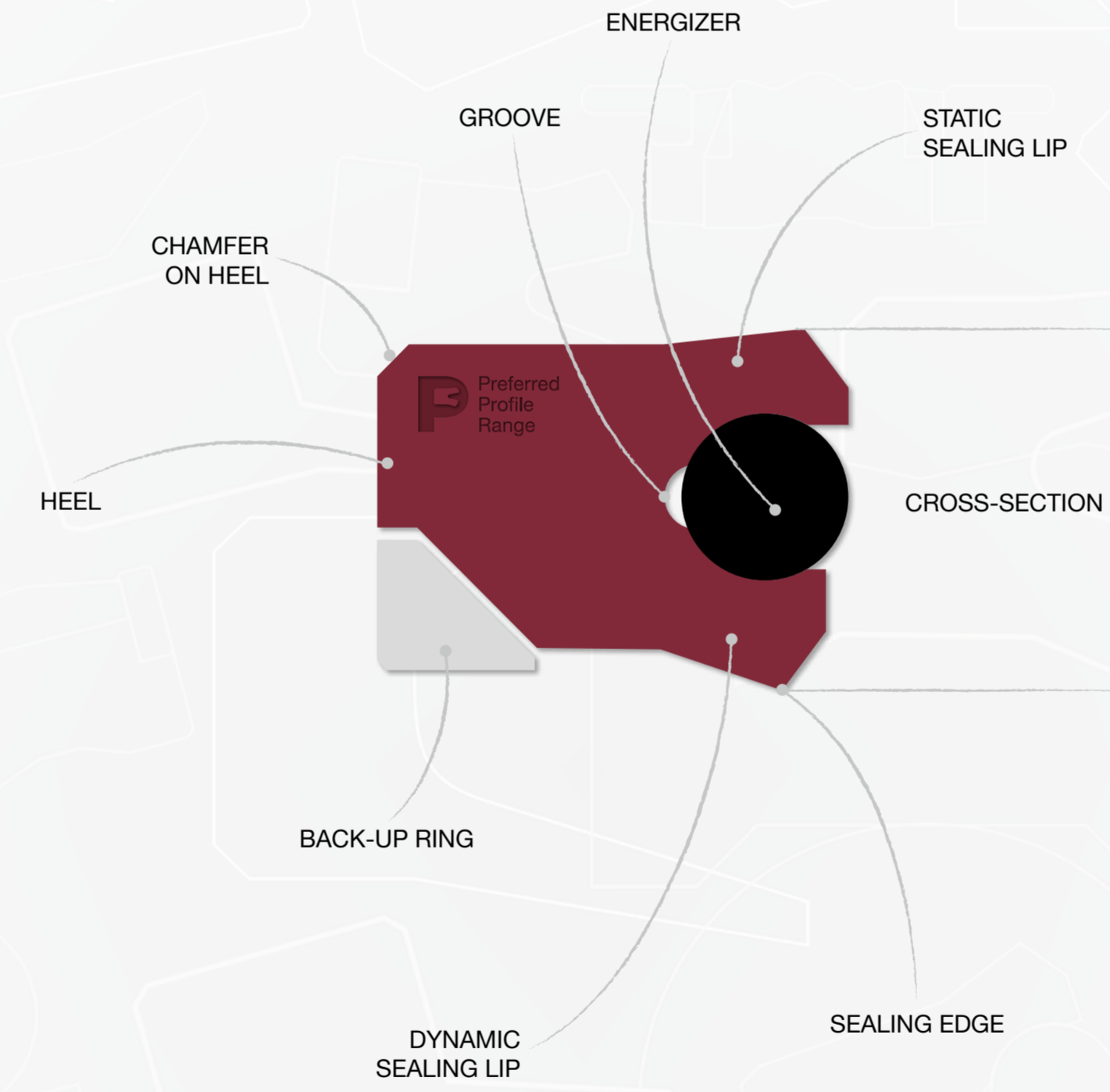
位于安装空间中固定安装的密封件一侧，密封件与组件之间几乎没有相对运动。

DYNAMIC SEALING LIP

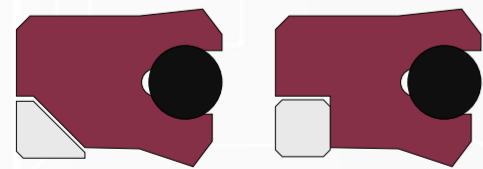
动态密封唇

Located in a place with relative movement between the seal and the component (e.g. rotating shafts, piston rod, bore). These lips have to be designed to seal effectively, even when moving, while minimizing wear-and-tear.

位于密封件和组件之间存在相对运动的位置（例如旋转轴、活塞杆、孔）。这些唇部必须设计成即使在移动时也能有效密封，同时尽量减少磨损。

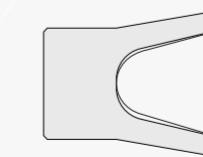


Profile RS04 - Asymmetric rod seal

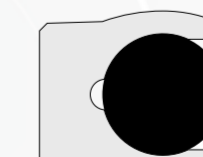


RS04

RS04A



PRS19



PRS19C



OUT OF LIMITS

One of Seal Maker's great strengths is customer focus. Special designs based on individual customer inquiries are no exception. The *Out of Limits* series presents projects with special requirements and special solutions. In the current project, a large seal for the hydropower industry, a highly demanding area of application was developed.

以客户为中心是Seal Maker的一大优势之一。根据客户的个性化询价进行特殊设计也是如此。“极限之外”系列展示了具有特殊要求和特殊解决方案的项目。在本期项目中，Seal Maker为水力发电行业（一个要求非常高的应用领域）开发了一个大型密封件。

Project Name: Sealing pressure pipe

Country: Mexico

Material used: U550-GM95

Customer Requirements:

Lip seal with a diameter of ~ 6,780 mm for use in a hydroelectric power plant. The goal was to develop a lip seal that is flexible enough to absorb the deformations, but also robust enough to withstand the pressure.

项目名称: 密封压力管

国家: 墨西哥

使用的材料: U550-GM95

客户需求:

用于水力发电站的唇形密封件，直径约 6,780 毫米。目标是开发一种既能灵活吸收变形又能承受压力的唇形密封件。

Special features / Challenges:

Development of a seal design for use in a pressure pipe which can accommodate large gaps and additionally a pressure of up to 20 bar

特殊功能/挑战:

开发一种用于压力管道的密封件设计，该设计可以容纳较大的间隙并承受高达 20 巴的压力

In order to meet the requirements of specific industries, Seal Maker has introduced specific solutions for applications entitled *Special Industry Solutions*. These solutions are intended for applications which are considered as critical due to the required fail-safety, required performance and for reasons of costs. Mainly, Seal Maker uses polyurethane materials for such applications. The properties of modern polyurethane materials exceed those of the traditionally used elastomers by far, and thus, contribute to a substantial improvement of the entire equipment.

为了满足特定行业的需要，Seal Maker针对需要故障安全、性能要求高且成本方面有要求的重要应用推出了“特殊行业解决方案”。Seal Maker主要针对此类应用使用聚氨酯材料。现代聚氨酯材料的性能远远超过传统弹性体材料，从而大大改善了整个设备的性能。

Discover our brochure specialized in the hydropower industry



Global Spotlight

AMERICAN HIGH PERFORMANCE SEALS

| | |
|---------------------------|------------------------------------|
| Owner: | Harald Kofler |
| Website: | www.ahpseals.com |
| Location: | Pittsburgh, Pennsylvania, USA |
| Years in Business: | 30 years |
| Customer since: | 1998 |
| Industry: | Machined & Molded Seals |
| Machines: | 2x SML420 2x SML500eBLS SML700 |



Focus:
Decades of expertise in development and testing equipment enable AHPS to provide timely custom solutions for OEMs (Original Equipment Manufacturers) and the MRO (Maintenance, Repair and Overhaul) sector. This extensive experience ensures tailor-made solutions that are precisely tailored to the specific needs and challenges of our customers.

聚焦:
凭借数十年的开发和测试设备专业知识，AHPS 能够为 OEM（原始设备制造商）和 MRO（维护、修理和大修）部门提供及时的定制解决方案。凭借丰富的经验，我们确保量身定制的解决方案能够精确满足客户的特定需求和挑战。

Mission:
American High Performance Seals takes the time to understand the customer goals and the application before recommending a seal. Whether it's running faster, performing better, or getting back online in as little time as possible, American High Performance Seals will discuss the exact performance criteria with its customers so they can deliver the best seal for their needs.

使命:
AHPS会在推荐密封件之前花时间了解客户的目标和应用。无论是要更快地运行、更好地执行，还是尽快地重新上线，AHPS都会与其客户讨论确切的性能标准，以便他们能够提供最适合他们需求的密封件。



Harald Kofler
Owner of American High Performance Seals, Inc

“Johann Glocknitzer and I share not just a friendship that dates back to our childhood days. After spending time together at a former employer, we remained loyal to the sealing industry and took the leap to start our own businesses. Today, we share not only a long-standing friendship but also a decades-long successful business relationship.”

我和Johann Glocknitzer的友谊可以追溯到我们年轻时代。在我们曾经的雇主那里共事之后，我们忠于密封行业，并冒险创办了自己的公司。如今，我们不仅分享着长期的友谊，还分享着数十年的共同成功业务合作关系。



Building



Team



Product

State of the Art Technology

New Generation Automated Seal Production!

Seal Maker continuously strives to improve *SML machine systems*, referring to safety issues, as well as to the reduction of set-up times. Our own engineers are always looking for innovations to further develop the system. Seal Maker is proud to present new product innovations in this issue as well.

Magnetic gripper bits for BLS

The popular semi-finished billet loading system - *BilletLoadingSystem120* - from Seal Maker enables the commonly available semi-finished products with a length of 120 - 170 mm and a diameter range of 20 - 120 mm outer diameter to be automatically loaded to the machine or the chuck without the operator having to intervene. The system has been designed so flexibly that the conversion to different diameters of the semi-finished products can take place within a very short time - perfectly suited for series production.

Seal Maker is constantly striving for improvement, consistently focusing on innovation. With the new gripper jaws for the *SML500eBLS*, the automation process has been further optimized. Thanks to the innovative magnet system, the gripper fingers can now be changed even faster when changing diameters. Safety in the production process has also been taken into account - higher clamping force and better grip also ensure a better fit of the semi-finished billet.



More Information

新一代自动化密封件生产!

Seal Maker 始终致力于改进 SML 机床系统，涉及安全问题以及减少设置时间。我们自己的工程师一直在寻找进一步开发该系统的创新方法。Seal Maker 也自豪地在这一期展示产品创新。

BLS的磁力夹持器

Seal Maker 广受欢迎的半成品坯料加载系统 - *BilletLoadingSystem120* - 使操作员无需干预即可将常见的长度为 120 - 170 毫米、外径范围为 20 - 120 毫米的半成品自动加载到机器或卡盘上。该系统设计灵活，可在极短时间内完成不同直径半成品的转换 - 非常适合批量生产。

Seal Maker 一直在追求改进，始终专注于创新。借助适用于 *SML500eBLS* 的新夹持器爪，自动化过程得到了进一步优化。由于采用了创新的磁铁系统，在改变直径时可以更快地更换夹持器手指。生产过程中的安全性也得到了重视 - 更高的夹紧力和更好的抓握力还可以确保半成品坯料更好地贴合。

BigBore

Seal Maker is pleased to announce another high-end-option: With the option *BigBore* a headstock with a spindle bore of $\varnothing 103$ mm can be selected for the *SML750eplus* machine in future. This allows the loading of billets up to a diameter of 100 mm. Thus, series production with larger rod diameters will also be possible. The machining range of 0-750 mm (850 mm with diameter extension) will remain unchanged.

大缸径

Seal Maker 很荣幸宣布另一个高端选项：借助 *BigBore* 选项，未来可以为 *SML750eplus* 机床选择主轴孔为 $\varnothing 103$ mm 的主轴箱。这允许加载直径最大达 100 毫米的坯料。因此，也可以进行更大棒材直径的批量生产。加工范围 0-750 mm（带直径延伸的 850 mm）将保持不变。



More Information



NEW



NEW

Magnetic Gripper Bits



More Information

CUSTOMER FEEDBACK

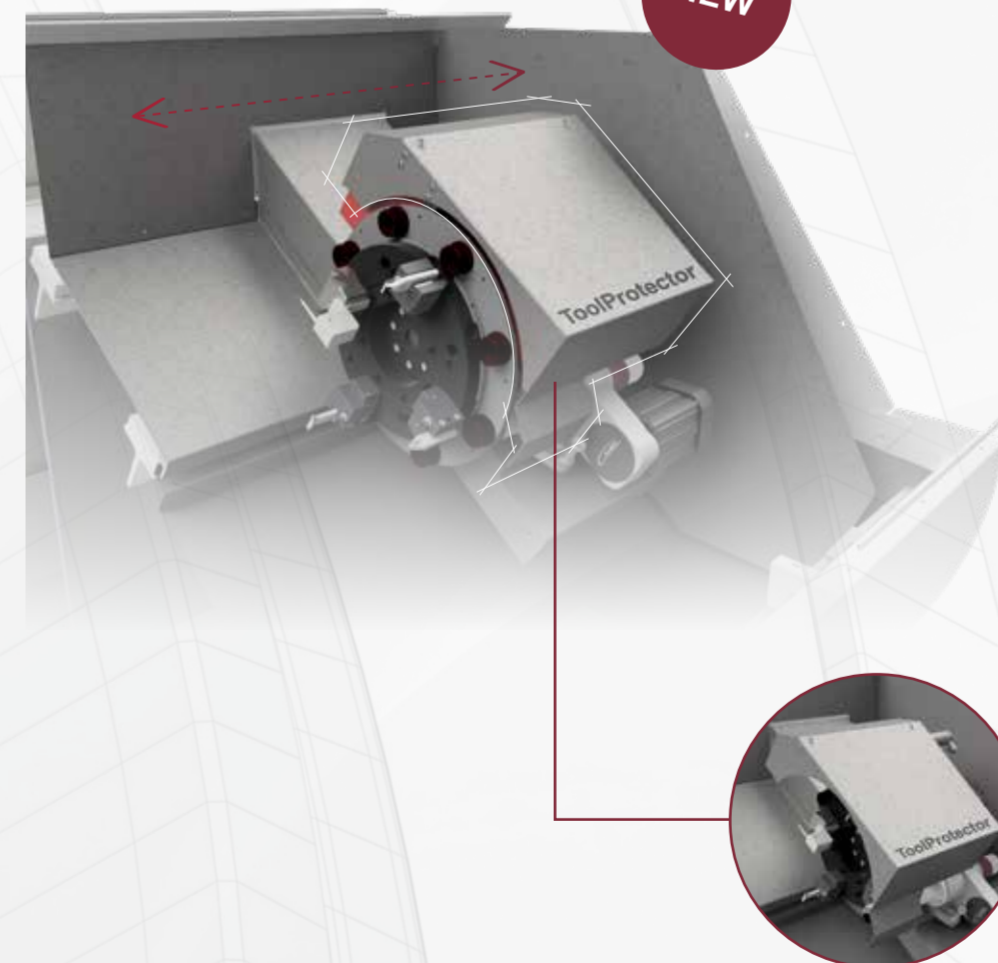
The proven *BLS system* is now successfully used by many customers, Seal Maker would like to thank you for the positive customer feedback:

"Thanks to the BLS120, we can easily manage our series production. Our machines run smoothly and we are extremely satisfied."

"The BLS120 has helped us optimize our production processes and increase efficiency. The uniform semi-finished billet clamping ensures a consistent quality of our seals."

"We are really fond of the performance of the BLS120. We appreciate the possibility that one employee can operate several machines at the same time."

NEW



ToolProtector

The *ToolProtector* is an automatic safety device that moves over the tools when the machine door is opened. This ensures that the operator(s) will not be injured by the tools during setup or cleaning operations. Of course, the *ToolProtector* can also be pushed aside manually. The new option can now be retrofitted to the machines *SML500e* and *SML750e*.

刀具保护器

ToolProtector 是一个自动安全装置，当机器门打开时会移到刀具上。这可确保操作员在设置或清洁操作过程中不会被刀具伤害。当然，*ToolProtector* 也可手动推开。现在可以将新选项改装到 *SML500e* 和 *SML750e* 机器上。



More Information



Seal Maker Team & Participants

Plastic-Cluster 2024

On March 18, a cluster meeting with regional members of the plastics processing industry Burgenland took place at Seal Maker. Since 2005, the *Kunststoffcluster Burgenland* - in cooperation with the Burgenland Economic Chamber has provided a platform for the exchange of knowledge and the use of synergies within the partner companies. As a founding member, Seal Maker has a significant responsibility and maintains a lively exchange with more than 20 partners. Under the title "Production thinks future", experts from the *Technical University in Vienna* and *Joanneum Research* reported on the latest developments on the subject of artificial intelligence, digitalization and sustainability. For Seal Maker as a host it was a great pleasure to be able to give an insight into the company.

3月18日，布尔根兰州塑料加工业区域成员在 Seal Maker 举行了一次集群会议。自2005年以来，布尔根兰州艺术中心与布尔根兰州经济商会合作，为合作伙伴公司内部的知识交流和协同效应提供了一个平台。作为创始成员，Seal Maker 肩负着重大责任，并与20多个合作伙伴保持着活跃的交流。来自维也纳工业大学和Joanneum Research的专家以“生产思考未来”为题，报告了人工智能、数字化和可持续性方面的最新发展。对于Seal Maker来说，作为东道主，能够深入了解公司是一件非常高兴的事情。



Seal Maker Team & Participants

SEAL DAY Bangkok

With the slogan "Sealing technology that fascinates", Seal Maker has been organizing special training courses for customers worldwide for several years. The last *Seal Day* took place in mid-March in Bangkok. Among other things, the focus was on professional material selection, correct seal measurement, seal welding, assembly of seals and many practical examples from the field of *Special Industries*. Many thanks to all participants for the exciting workshop.

多年来，Seal Maker一直秉承“引人入胜的密封技术”的口号，为全球客户举办客户专题培训课程。最近一次 Seal Day 活动于3月中旬在曼谷举行。培训内容除其他外，还侧重于专业的材料选择、正确的密封件测量、密封件焊接、密封件组装以及来自特殊行业领域的许多实用案例。感谢所有参与者带来精彩的研讨会。

APM Exhibiton

With a 18m² booth, Seal Maker presented its special sealing know-how in the field of *MARINE* applications at Asia Pacific Maritime in Singapore. Often unnoticed, seals make a significant contribution to the safety, efficiency and service life of ships. The Seal Maker team would like to thank the many visitors for interesting conversations, new contacts and lively exchange about the application of seals in the shipping industry.

Seal Maker凭借18平方米的展位，在新加坡举行的亚太海事展上展示了其在船舶应用领域的特殊密封专业知识。密封件通常不被人们注意，但它们对船舶的安全、效率和使用寿命做出了重大贡献。Seal Maker团队感谢众多参观者进行的精彩对话，认识的新朋友以及关于航运业密封件应用的热烈交流。



Christian Gutnik, Yvonne Chang, Alexander Haspel

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